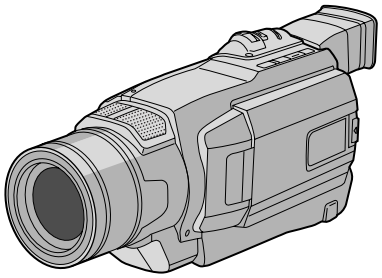
JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-DVL145EK, GR-DVL149EG-X



Mini DV PAL

Regarding service information other than these sections, refer to the service manual No. 86693 (GR-DVL145EG-X). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVL145.)*

Camcorder

General

Power supply	:	DC 11.0 V ⎓ (Using AC Adapter) DC 7.2 V ⎓ (Using battery pack)
Power consumption		
LCD monitor off, viewfinder on	:	Approx. 4.3 W
LCD monitor on, viewfinder off	:	Approx. 5.3 W
Dimensions (W x H x D)	:	83 mm x 94 mm x 223 mm (with the LCD monitor closed and the viewfinder pushed down)
Weight	:	Approx. 630 g
Operating temperature	:	0°C to 40°C
Operating humidity	:	35% to 80%
Storage temperature	:	–20°C to 50°C
Pickup	:	1/4" CCD
Lens	:	F 1.6, f = 3.9 mm to 62.4 mm, 16:1 power zoom lens
Filter diameter	:	ø40.5 mm
LCD monitor	:	2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder	:	Electronic viewfinder with 0.24" black/white LCD
Speaker	:	Monaural

Digital Video Camera

Format	:	DV format (SD mode)
Signal format	:	PAL standard
Recording/Playback format	:	Video: Digital component recording
	:	Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	:	Mini DV cassette
Tape speed	:	SP: 18.8 mm/s LP: 12.5 mm/s
Maximum recording time (using 80 min. cassette)	:	SP: 80 min. LP: 120 min.

Connectors

S-Video		
Output	:	Y: 1 V (p-p), 75 Ω, analogue C: 0.29 V (p-p), 75 Ω, analogue
AV		
Video output	:	1 V (p-p), 75 Ω, analogue
Audio output	:	300 mV (rms), 1 kΩ, analogue, stereo
DV		
Output	:	4-pin, IEEE 1394 compliant

AC Adapter

Power requirement	:	AC 110 V to 240 V , 50 Hz/60 Hz
Output	:	DC 11 V ⎓, 1 A

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

GR-DVL145EK, GR-DVL149EG-X M2D122

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2002/12

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The following table indicates different parts number between models GR-DVL145EG-X, GR-DVL145EK and GR-DVL149EG-X.

PACKING AND ACCESSORY ASSEMBLY<M1>

⚠ REF NO.	ITEM \ MODEL	GR-DVL145EG-X	GR-DVL145EK	GR-DVL149EG-X
1	PACKING CASE	LY32746-001A	*LY32746-001B	←
5	POLY BAG	QPA02003506	YQM30061-3	QPA02003506
⚠ 6	INST. BOOK(GE)	LYT1023-002A	—	LYT1089-001A
⚠ 6	INST. BOOK(FR)	LYT1023-003A	—	—
⚠ 6	INST. BOOK(DU)	LYT1023-004A	—	—
⚠ 6	INST. BOOK(SP)	LYT1023-005A	—	—
⚠ 6	INST. BOOK(IT)	LYT1023-006A	—	—
⚠ 6	INST. BOOK(EN)	—	LYT1023-001A	—
9	WARRANTY CARD	BT-54013-2	—	BT-54013-5
9	GUARANTY CARD	—	BT-54008-4	—
20	POWER CORD	QMPL120-190-JR	QMPP110-190-JR	QMPL120-190-JR
	Q. CARD(JUK)	—	LYT0194-001B	—

FINAL ASSEMBLY<M2>

⚠ REF NO.	ITEM \ MODEL	GR-DVL145EG-X	GR-DVL145EK	GR-DVL149EG-X
101	UPPER CASE ASSY	LY20867-002A	*LY20867-002B	←
113	SPECIAL SCREW	LY30018-0G6A	*LY30018-059A	←
149	ZOOM UNIT	LY20693-001B	*LY20693-005B	←
181	SPECIAL SCREW	LY30019-029A	*LY30019-029B	←
186	E-CARD WIRE	WJT0076-001A	*WJT0076-001B	←

MONITOR ASSEMBLY<M5>

⚠ REF NO.	ITEM \ MODEL	GR-DVL145EG-X	GR-DVL145EK	GR-DVL149EG-X
503	BRACKET(FRM1)	LY32748-001B	*LY32748-001D	←
515	LIGHT SCREEN	LY43392-001A	*LY43938-001A	←
519	DIFFUSION SHEET(2.5)	LY43362-001A	*LY43901-001B	←

MAIN BOARD ASSEMBLY<01>

⚠ REF NO.	ITEM \ MODEL	GR-DVL145EG-X	GR-DVL145EK	GR-DVL149EG-X
IC4301	IC	JCY0158	*JCY0150	←
R4347	MG RESISTOR	—	*NRSA6AJ-223W	←
R4348	MG RESISTOR	—	*NRSA6AJ-223W	←
R4349	MG RESISTOR	—	*NRSA6AJ-223W	←
R4350	MG RESISTOR	—	*NRSA6AJ-223W	←

Note: Mark ← is same as left.
Mark — is not used.
Mark * reference model was also changed.

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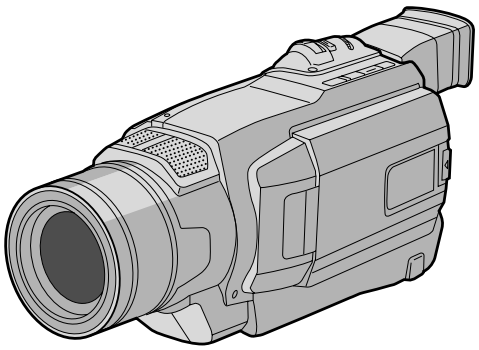
SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-DVL145EG



Mini DV PAL

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVL145EG/EK)*

Camcorder

General

Power supply	: DC 11.0 V ⎓ (Using AC Adapter) DC 7.2 V ⎓ (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	: Approx. 4.3 W
LCD monitor on, viewfinder off	: Approx. 5.3 W
Dimensions (W x H x D)	: 83 mm x 94 mm x 223 mm (with the LCD monitor closed and the viewfinder pushed down)
Weight	: Approx. 630 g
Operating temperature	: 0°C to 40°C
Operating humidity	: 35% to 80%
Storage temperature	: –20°C to 50°C
Pickup	: 1/4" CCD
Lens	: F 1.6, f = 3.9 mm to 62.4 mm, 16:1 power zoom lens
Filter diameter	: ø40.5 mm
LCD monitor	: 2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder	: Electronic viewfinder with 0.24" black/white LCD
Speaker	: Monaural

Digital Video Camera

Format	: DV format (SD mode)
Signal format	: PAL standard
Recording/Playback format	: Video: Digital component recording : Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
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Tape speed	: SP: 18.8 mm/s LP: 12.5 mm/s
Maximum recording time (using 80 min. cassette)	: SP: 80 min. LP: 120 min.

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S-Video	
Output	: Y: 1 V (p-p), 75 Ω, analogue C: 0.29 V (p-p), 75 Ω, analogue
AV	
Video output	: 1 V (p-p), 75 Ω, analogue
Audio output	: 300 mV (rms), 1 kΩ, analogue, stereo
DV	
Output	: 4-pin, IEEE 1394 compliant

AC Adapter

Power requirement	: AC 110 V to 240 V∿, 50 Hz/60 Hz
Output	: DC 11 V ⎓ , 1 A

Specifications shown are for SP mode unless otherwise indicated. E & O.E.
Design and specifications subject to change without notice.

GR-DVL145EG

No. 86693

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No. 86693
April 2002

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Important Safety Precautions

Prior to shipment from the factory, JVC products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

● Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the ⚠ symbol and shaded ( ) parts are critical for safety.
   Replace only with specified part numbers.
   Note: Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Fuse replacement caution notice.
   Caution for continued protection against fire hazard.
   Replace only with same type and rated fuse(s) as specified.

4. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads

5. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape 3) Spacers 5) Barrier
   2) PVC tubing 4) Insulation sheets for transistors

6. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.) wrap ends of wires securely about the terminals before soldering.

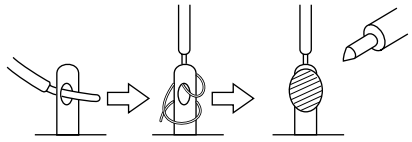


Fig.1

7. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

8. Check that replaced wires do not contact sharp edged or pointed parts.

9. When a power cord has been replaced, check that 10-15 kg of force in any direction will not loosen it.

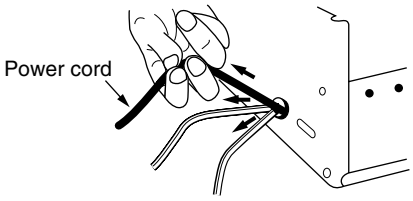


Fig.2

10. Also check areas surrounding repaired locations.

11. Products using cathode ray tubes (CRTs)
    In regard to such products, the cathode ray tubes themselves, the high voltage circuits, and related circuits are specified for compliance with recognized codes pertaining to X-ray emission.
    Consequently, when servicing these products, replace the cathode ray tubes and other parts with only the specified parts. Under no circumstances attempt to modify these circuits.
    Unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

12. Crimp type wire connector
    In such cases as when replacing the power transformer in sets where the connections between the power cord and power transformer primary lead wires are performed using crimp type connectors, if replacing the connectors is unavoidable, in order to prevent safety hazards, perform carefully and precisely according to the following steps.

    1) Connector part number : E03830-001
    2) Required tool : Connector crimping tool of the proper type which will not damage insulated parts.
    3) Replacement procedure
    (1) Remove the old connector by cutting the wires at a point close to the connector.
    Important : Do not reuse a connector (discard it).

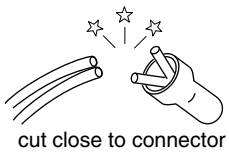


Fig.3

(2) Strip about 15 mm of the insulation from the ends of the wires. If the wires are stranded, twist the strands to avoid frayed conductors.

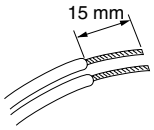


Fig.4

(3) Align the lengths of the wires to be connected. Insert the wires fully into the connector.

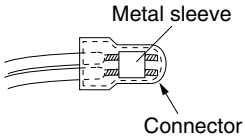


Fig.5

(4) As shown in Fig.6, use the crimping tool to crimp the metal sleeve at the center position. Be sure to crimp fully to the complete closure of the tool.

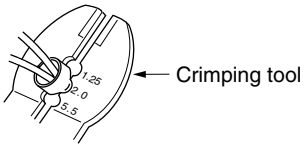


Fig.6

(5) Check the four points noted in Fig.7.

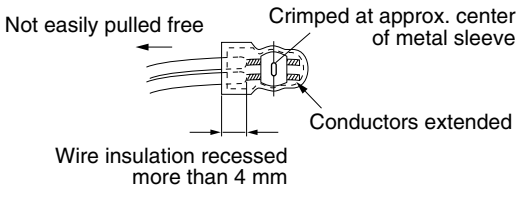

Not easily pulled free
Crimped at approx. center of metal sleeve
Conductors extended
Wire insulation recessed more than 4 mm

Fig.7

● Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions, Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Insulation resistance test

Confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

2. Dielectric strength test

Confirm specified dielectric strength or greater between power cord plug prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.). See table 1 below.

3. Clearance distance

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table 1 below.

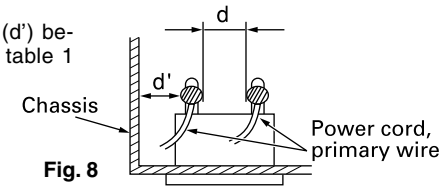


Fig. 8

4. Leakage current test

Confirm specified or lower leakage current between earth ground/power cord plug prongs and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.).

Measuring Method : (Power ON)

Insert load Z between earth ground/power cord plug prongs and externally exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure 9 and following table 2.

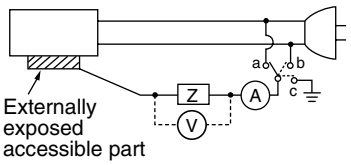


Fig. 9

5. Grounding (Class 1 model only)

Confirm specified or lower grounding impedance between earth pin in AC inlet and externally exposed accessible parts (Video in, Video out, Audio in, Audio out or Fixing screw etc.).

Measuring Method:

Connect milli ohm meter between earth pin in AC inlet and exposed accessible parts. See figure 10 and grounding specifications.

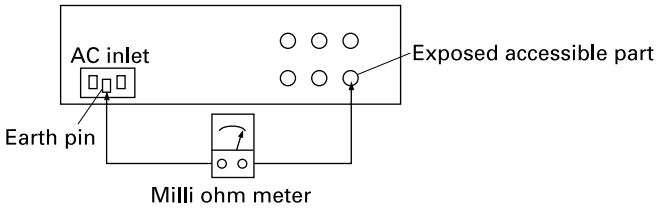


Fig. 10

Grounding Specifications

Region	Grounding Impedance (Z)
USA & Canada	Z ≦ 0.1 ohm
Europe & Australia	Z ≦ 0.5 ohm

AC Line Voltage	Region	Insulation Resistance (R)	Dielectric Strength	Clearance Distance (d), (d')
100 V	Japan	R ≧ 1 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3 mm
100 to 240 V			AC 1.5 kV 1 miute	d, d' ≧ 4 mm
110 to 130 V	USA & Canada	1 MΩ ≦ R ≦ 12 MΩ/500 V DC	AC 1 kV 1 minute	d, d' ≧ 3.2 mm
110 to 130 V 200 to 240 V	Europe & Australia	R ≧ 10 MΩ/500 V DC	AC 3 kV 1 minute (Class Ⅱ) AC 1.5 kV 1 minute (Class Ⅰ)	d ≧ 4 mm d' ≧ 8 mm (Power cord) d' ≧ 6 mm (Primary wire)

Table 1 Specifications for each region

AC Line Voltage	Region	Load Z	Leakage Current (i)	a, b, c
100 V	Japan	1 kΩ	i ≦ 1 mA rms	Exposed accessible parts
110 to 130 V	USA & Canada	0.15 μF, 1.5 kΩ	i ≦ 0.5 mA rms	Exposed accessible parts
110 to 130 V 220 to 240 V	Europe & Australia	2 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Antenna earth terminals
		50 kΩ	i ≦ 0.7 mA peak i ≦ 2 mA dc	Other terminals

Table 2 Leakage current specifications for each region

Note: These tables are unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

SECTION 1
DISASSEMBLY

1.1 BEFORE ASSEMBLY AND DISASSEMBLY

1.1.1 Precautions

1. Be sure to remove the power supply unit prior to mounting and soldering of parts.
2. When removing a component part that needs to disconnect the connector and to remove the screw for removing itself, first disconnect the connecting wire from the connector and then remove the screw beforehand.
3. When connecting and disconnecting the connectors, be careful not to damage the wire.
4. Carefully remove and handle the part to which some spacer or shield is attached for reinforcement or insulation.
5. When replacing chip parts (especially IC parts), desolder completely first (to prevent peeling of the pattern).
6. Tighten screws properly during the procedures.
   Unless specified otherwise, tighten screws at a torque of 0.088N•m(0.9kgf•cm).

1.1.2 Assembly and disassembly

STEP No.	PART	Fig.No.	POINT	NOTE
①	COVER(ZOOM) ASSY	Fig.1-3-1	(S①a),(S①b),2(L①a),2(L①b)	-
②	UPPER CASE ASSY (Inc.E.VF ASSY (B/W),SPEAKER/ MONITOR)	Fig.1-3-2	4(S②a),3(S②b),(L②),(S⑩cl (S②d) CAP(DC JACK) ☆CN②	NOTE②
	(1)	(2)	(3)	(4)	(5)

(1) Indicate the disassembly steps. When assembling, perform in the reverse order of these steps. This number corresponds to the number in the disassembly diagram.

(2) Indicates the name of disassembly/assembly parts.

(3) Indicates the number in the disassembly diagram.

(4) Indicates parts and points such as screws, washers, springs which must be removed during disassembly/assembly.

Symbol	Name, Point
S	Screw
L	Lock, Pawl, Hook
SD	Soldering
☆(Others)	Connector, Cover, Bracket, etc.

(Example)
- 2 (S①) : Remove the two screws (S①) for removing the part 1.
- CN ②a: Disconnect the connector ②a .
- SD① : Unsolder at the point SD①.

(5) Precautions on disassembly/assembly.

1.1.3 Destination of connectors

Note: *Three kinds of double-arrows in connection tables respectively show kinds of connector/wires.*
↔ : Wire
⇔ : Flat wire
⬌ : Board to Board connector

[Example]
Note: *Remove the parts marked in* .

CONN. No.	CONNECTOR					Pin No.
CN②	MAIN	CN101	⇔	MONITOR	CN761	40

1.1.4 Disconnection of connectors (Wires)

Connector
Pull both ends of the connector in the arrow direction, remove the lock and disconnect the flat wire.

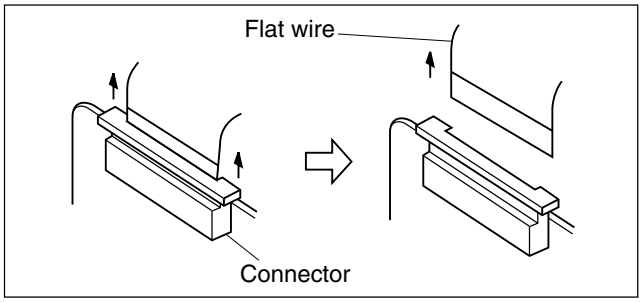


Fig. 1-1-1 Connector 1

Extend the locks in the direction of the arrow for unlocking and then pull out the wire. After removing the wire, immediately restore the locks to their original positions because the locks are apt to come off the connector.

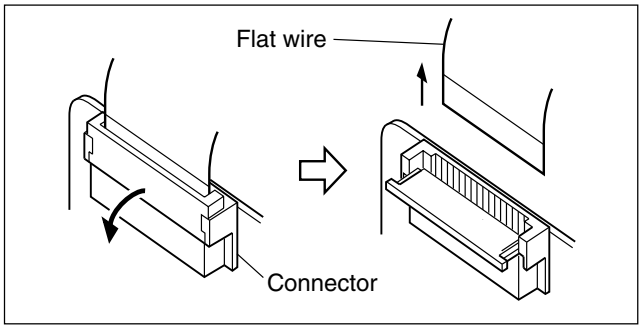


Fig. 1-1-2 Connector 2

B-B connector
Pull the board by both the sides in the direction of the arrow for disconnecting the B-B connector.

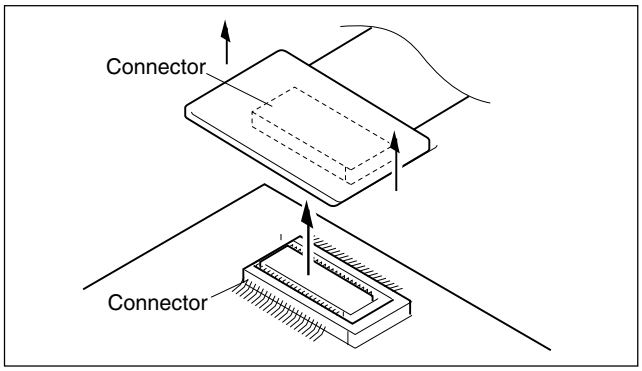


Fig. 1-1-3 Connector 3

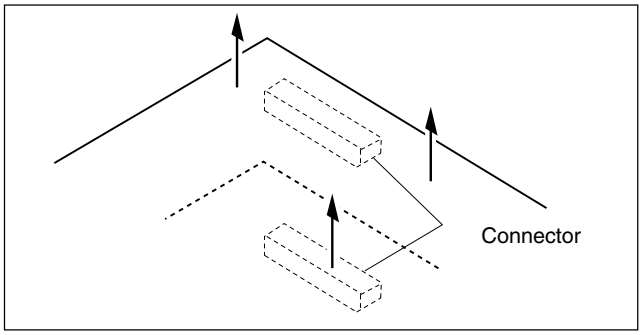


Fig. 1-1-4 Connector 4

1.2 JIGS AND TOOLS REQUIRED FOR DISASSEMBLY, ASSEMBLY AND ADJUSTMENT

1.2.1 Tools required for adjustments

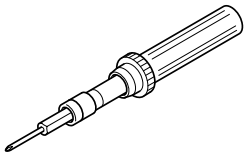
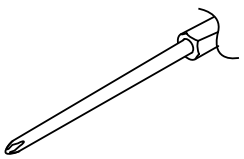
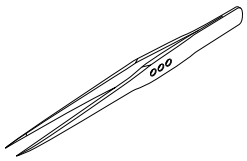
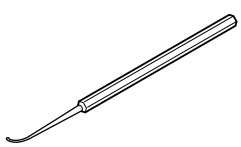
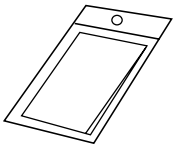
1 Torque driver YTU94088	2 Bit YTU94088-003
	
3 Tweezers P-895	4 Chip IC replacement jig PTS40844-2
	
5 Cleaning cloth KSMM-01	
	

Table 1-2-1

1. **Torque driver**
   Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
2. **Bit**
   This bit is slightly longer than those set in conventional torque drivers.
3. **Tweezers**
   To be used for removing and installing parts and wires.
4. **Chip IC replacement jig**
   To be used for adjustment of the camera system.
5. **Cleaning cloth**
   Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

1.3 DISASSEMBLY/ASSEMBLY OF CABINET PARTS AND BOARD ASSEMBLY

1.3.1 Disassembly flow chart

This flowchart indicates the disassembly step for the cabinet parts and board assembly in order to gain access to item(s) to be serviced. When reassembling, perform the step(s) in reverse order.

①	COVER(ZOOM) ASSY
②	UPPER CASE ASSY (Inc.E.VF ASSY(B/W),SPEAKER/MONITOR)
③	FRONT COVER ASSY (Inc. MIC)
④	OP BLOCK ASSY /BRACKET(OP) ASSY
⑤/⑥/⑦	OP BLOCK ASSY/JACK BOARD ASSY/ FRAME ASSY
⑧	REAR UNIT
⑨	LOWER CASE ASSY (Inc.ZOOM UNIT)
⑩	JUNCTION BOARD ASSY
⑪/⑫	MAIN BOARD ASSY /MECHANISM ASSY
⑬	E.VF ASSY (B/W)
⑭/⑮	MONITOR ASSY /MONITOR BOARD ASSY

Table 1-3-1

1.3.2 Disassembly method

STEP No.	PART	Fig.No.	POINT	NOTE
①	COVER(ZOOM) ASSY	Fig.1-3-1	(S①a),(S①b),2(L①a),2(L①b)	-
②	UPPER CASE ASSY (Inc.E.VF ASSY (B/W),SPEAKER/ MONITOR)	Fig.1-3-2	4(S②a),3(S②b),(L②),(S②c) (S②d) CAP(DC JACK) ☆CN②	NOTE②
③	FRONT COVER ASSY (Inc.MIC)	Fig.1-3-3	(S③a),2(S③b),(L③a) (L③b),☆CN③	NOTE③a NOTE③b
④	OP BLOCK ASSY /BRACKET(OP) ASSY	Fig.1-3-4	☆CN④a,CN④b,CN④c 3(S④)	-
⑤ / ⑥	OP BLOCK ASSY	Fig.1-3-5		
	JACK BOARD ASSY		3(S⑥)	
/ ⑦	FRAME ASSY		2(S⑦)	
⑧	REAR UNIT	Fig.1-3-6	☆CN⑧ 4(S⑧)	NOTE⑧
⑨	LOWER CASE ASSY (Inc.ZOOM UNIT)	Fig.1-3-7	☆CN⑨ (S⑨a),4(S⑨b),(L⑨a),(L⑨b)	-
⑩	JUNCTION BOARD ASSY	Fig.1-3-8	☆CN⑩a,CN⑩b,CN⑩c 2(S⑩),☆CN⑩d	NOTE⑩a NOTE⑩b
⑪ / ⑫	MAIN BOARD ASSY /MECHANISM ASSY	Fig.1-3-9	(S⑪a),(L⑪a),SHIELD PLATE ☆CN⑪a,CN⑪b,CN⑪c 2(S⑪b),(L⑪b)	-
⑬	E.VF ASSY (B/W)	Fig.1-3-10	☆CN⑬,(S⑬a),(S⑬b) (L⑬)	NOTE⑬a NOTE⑬b
⑭ / ⑮	MONITOR ASSY	Fig.1-3-11	3(S⑭a),COVER(HINGE) ☆CN⑭, 2(S⑭b)	NOTE⑭
	MONITOR BOARD ASSY		(S⑮a),PLATE(SPK), 3(S⑮b),(L⑮)	NOTE⑮

Table 1-3-2

Note: *Remove the parts marked in* .

CONN. No.	CONNECTOR					Pin No.
CN②	MAIN	CN101	⇔	MONITOR	CN761	40
CN③	MAIN	CN106	↔	MIC	—	3
CN④a	MAIN	CN107	⇔	CCD	—	20
CN④b	MAIN	CN108	⇔	OP BLOCK ASSY	—	22
CN⑧	MAIN	CN104	↔	REAR UNIT	CN1	10
CN⑨	MAIN	CN109	⇔	ZOOM UNIT	—	15
CN④c	JACK	CN502	⇔	MAIN	CN103	20
CN⑩a	JUNCTION	CN571	⇔	MAIN	CN113	34
CN⑩b	JUNCTION	CN574	⇔	LOADING MOTOR	—	6
CN⑩c	JUNCTION	CN573	⇔	DRUM MOTOR	—	11
CN⑩d	JUNCTION	CN572	⇔	SENSOR	—	15
CN⑪a	MAIN	CN110	⇔	HEAD	—	8
CN⑪b	MAIN	CN112	⇔	CAPSTAN MOTOR	—	18
CN⑪c	MAIN	CN111	⇔	ROTARY ENCODER	—	6
CN⑬	MONITOR	CN763	⇔	E.VF ASSY (B/W)	CN721	20
CN⑭	MONITOR	CN764	⇔	LCD BL	CN751	33/32

Table 1-3-3

NOTE ②: *Remove the CAP (DC JACK) before removing these parts .*

NOTE ③a: *As it is difficult to remove (L③b), remove the F. COVER ASSY by lowering it.*

NOTE ③b: *Be careful not to damage any parts.*

Particularly, take care not to scratch or stain the lenses.

NOTE ⑧: *As screw No. 24 is hidden behind the cassette cover, open the cassette cover to enable removal of the screw.*

NOTE ⑩a: *As the CN572 is located at the back of the assembly, unplug the three connectors and remove the screws before disconnecting the CN572.*

NOTE ⑩b: *Be careful not to damage any of the switches.*

NOTE ⑬a: *To remove the unit, unlock the connector and pull out the unit together with the FPC.*

NOTE ⑬b: *When removing the unit, insert the FPC into the gap.*

NOTE ⑭: *When reassembling the MONITOR ASSY, be careful not to damage any of the parts.*

NOTE ⑮: *Be careful not to damage any of the parts.*

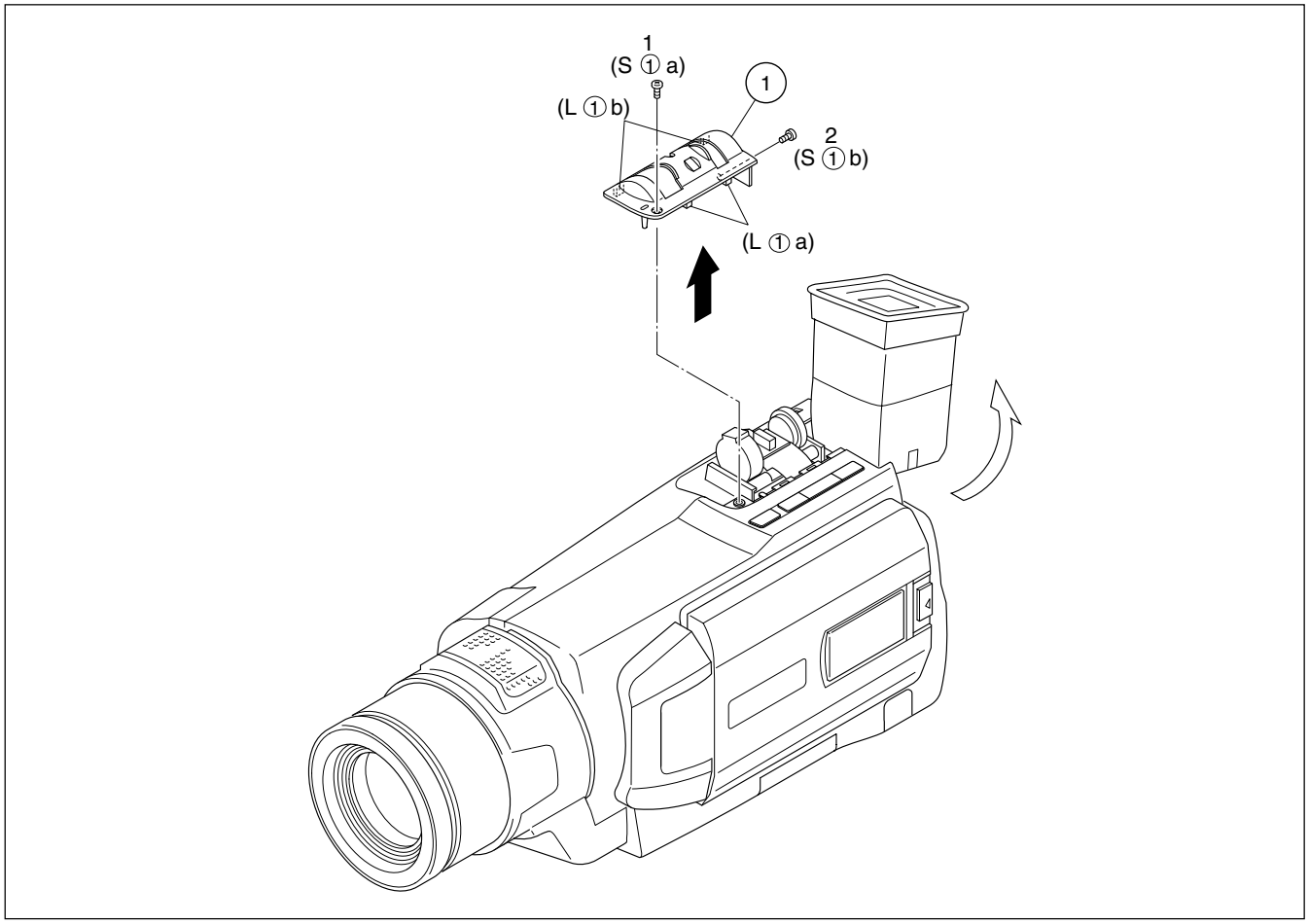


Fig. 1-3-1

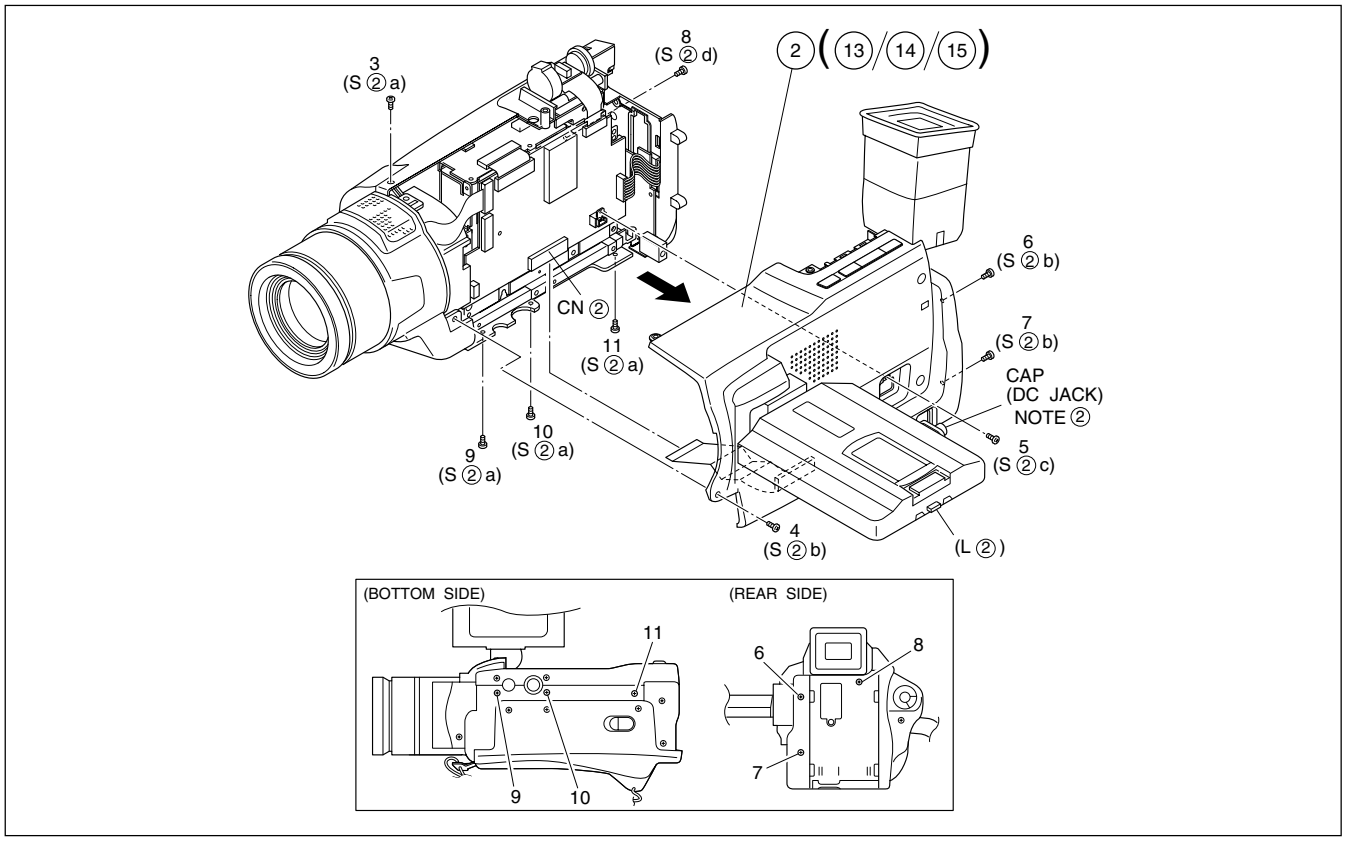


Fig. 1-3-2

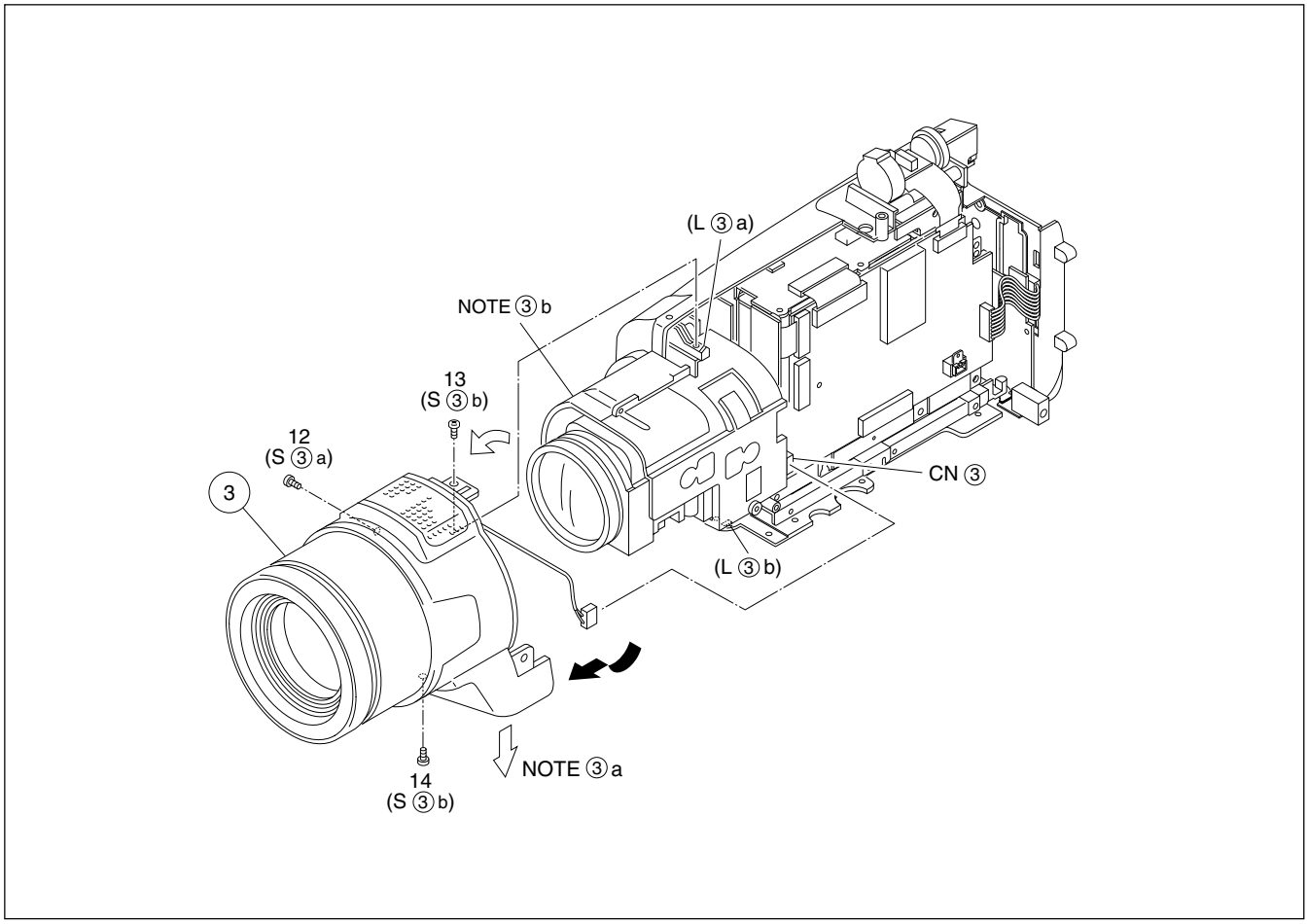


Fig. 1-3-3

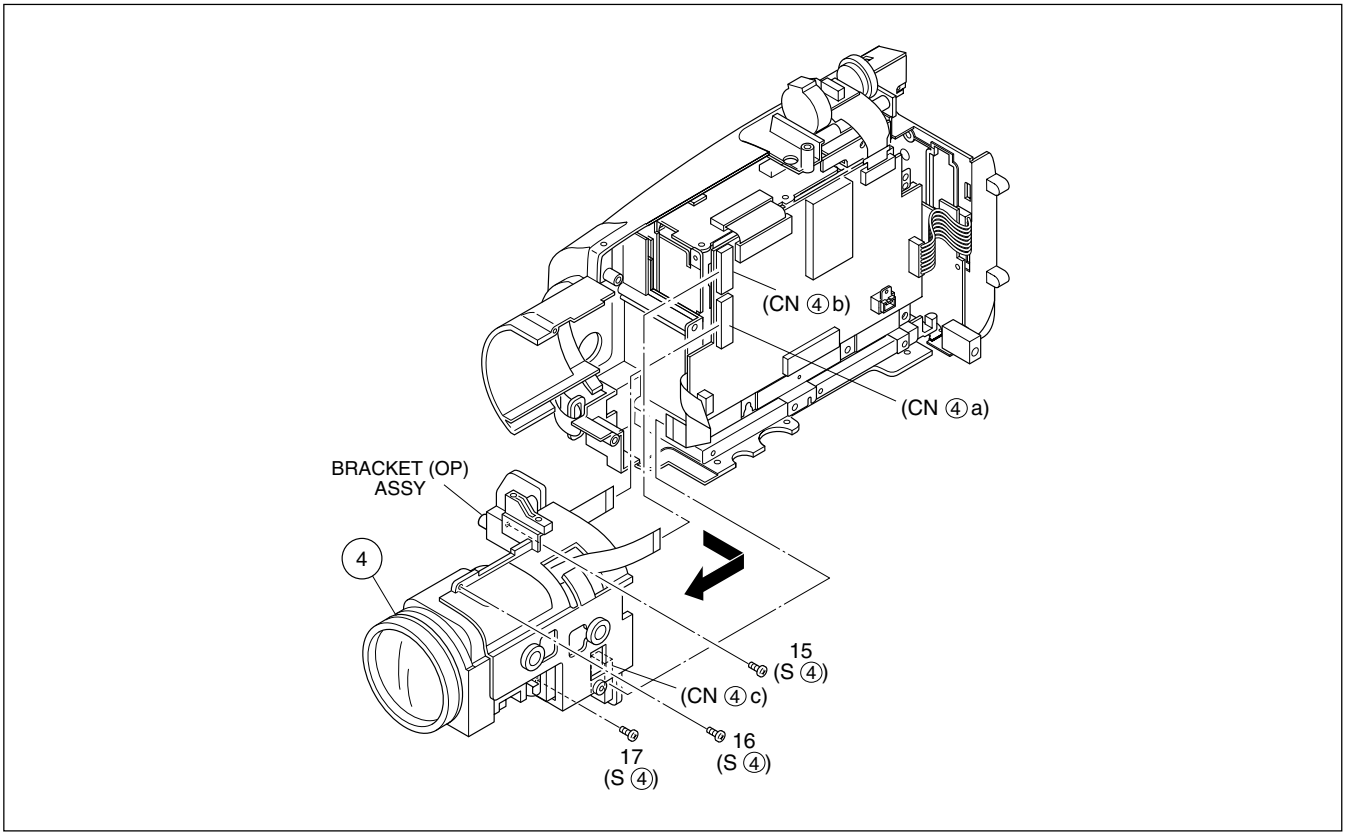
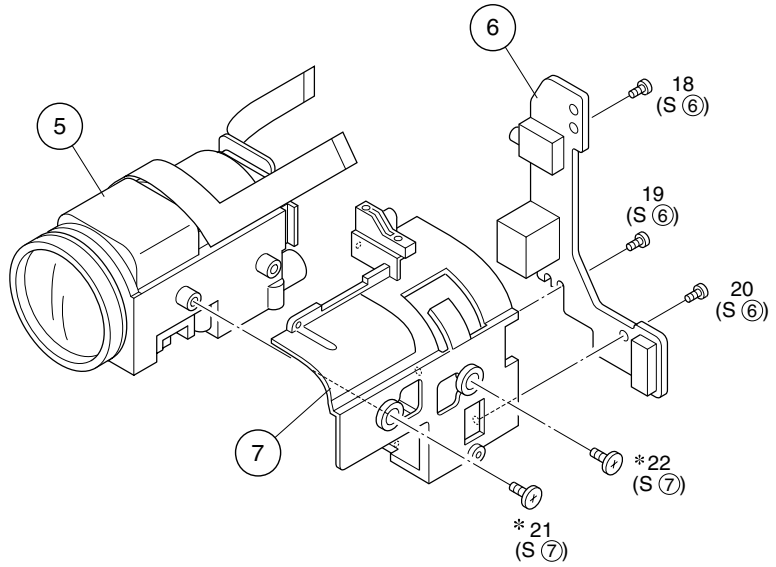


Fig. 1-3-4



* : 0.196 N•m (2.0 kgf•cm)

Fig. 1-3-5

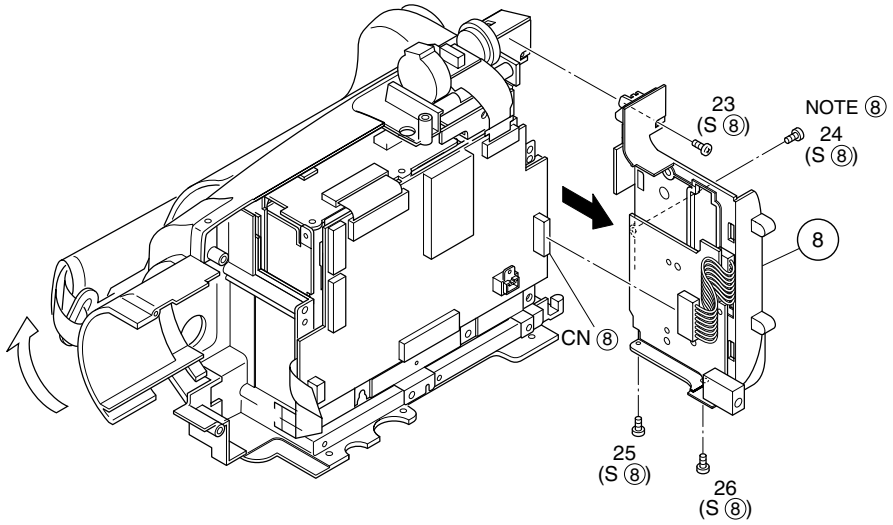


Fig. 1-3-6

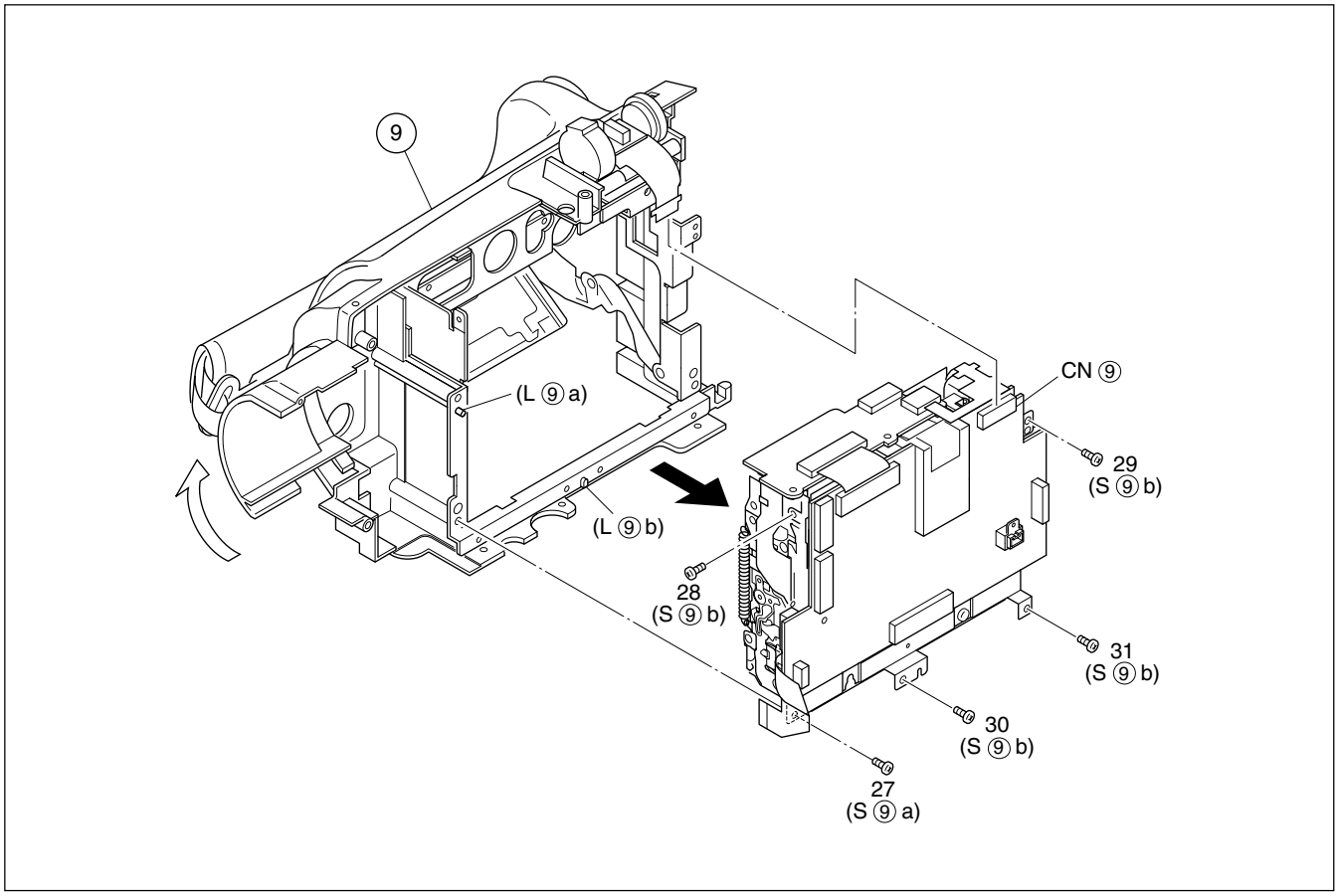


Fig. 1-3-7

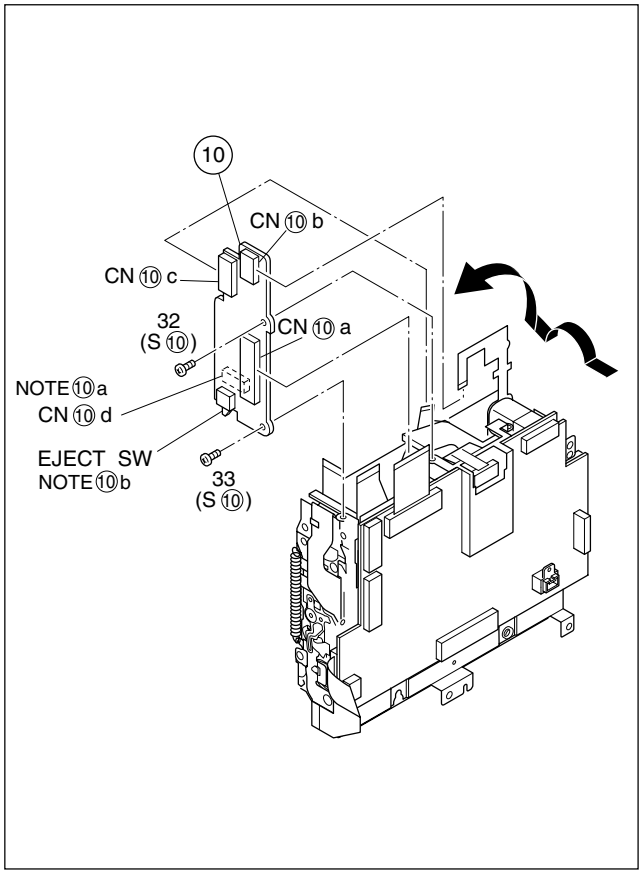


Fig. 1-3-8

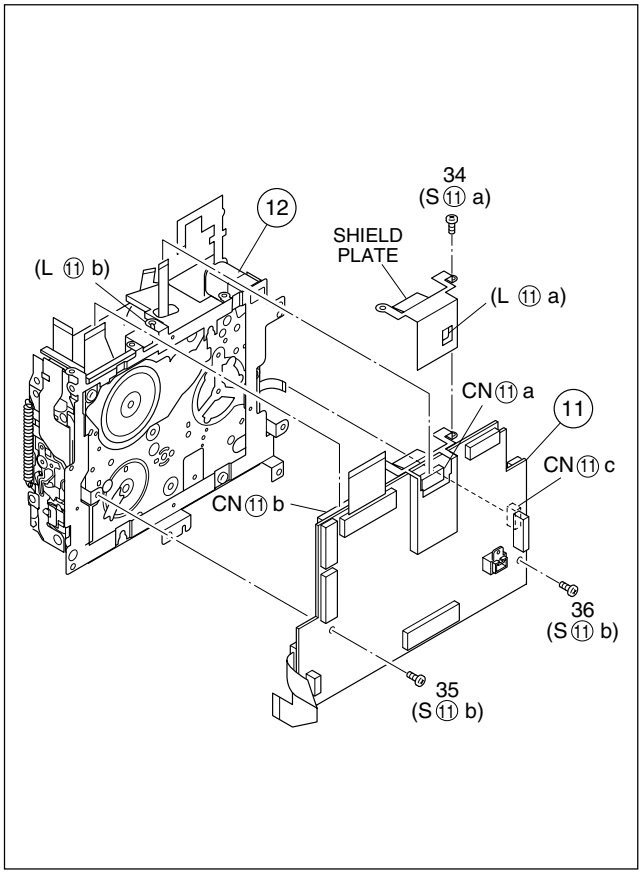


Fig. 1-3-9

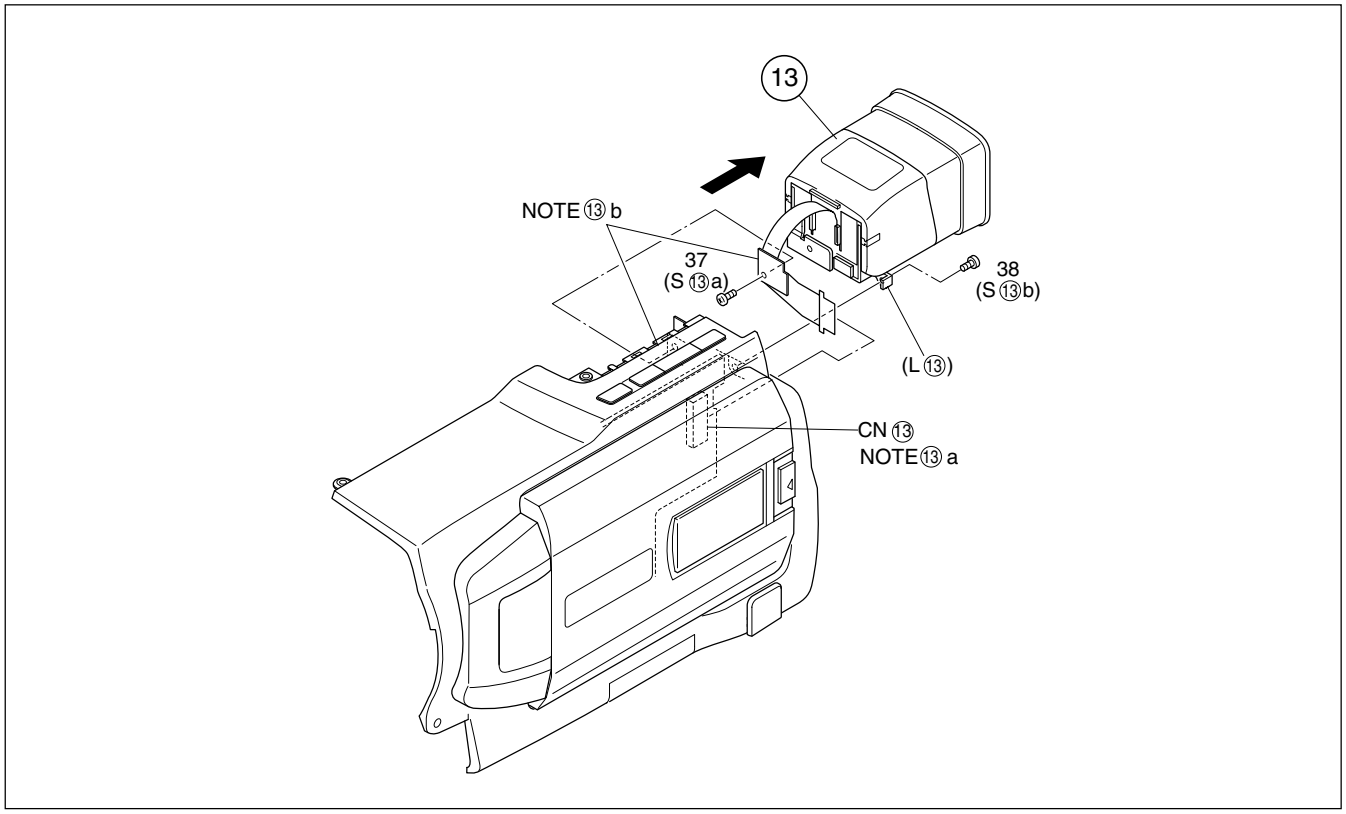


Fig. 1-3-10

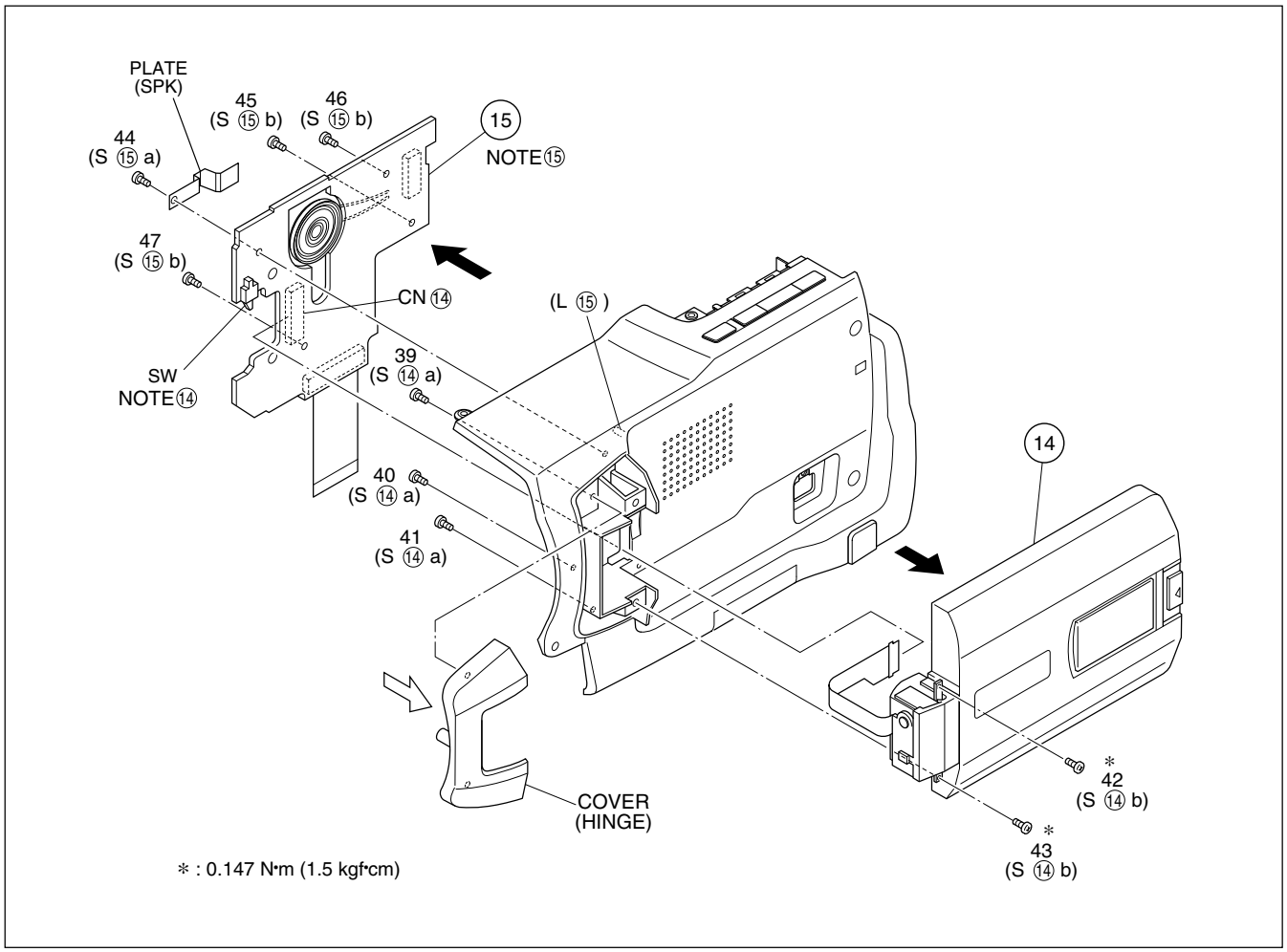


Fig. 1-3-11

1.4 ⑭ MONITOR ASSEMBLY

Note: *The shape of the monitor assembly varies by the size of the LCD screen.*

For the 2.5"-type LCD, refer to Fig. 1-4-1.

1.4.1 Disassembly/assembly of monitor assembly (for 2.5"-type LCD)

Note: *Be careful not to soil or scratch the monitor screen through the disassembly/assembly work.*

1. Remove the four screws 1 to 4 in numerical order. While disengaging the six hooks (L⑭a to L⑭f) in alphabetical order, remove the monitor cover assembly.
2. Unlock the connector ⓐ and then disconnect the FPC while lifting the hinge assembly upwards to remove it together with the FPC.

Note⑭a: *For disconnecting the FPC, unlock the connector first and then lift the hinge assembly upwards. Accordingly, the FPC is disconnected together with the hinge assembly.*

Note⑭b: *Treat the wires carefully.*

3. Remove the screw (5), unplug the FPC from the connector ⓑ, and then remove the LCD BL board assembly, DIF sheet and bracket (FRM2) in that order.
4. Remove the LCD module.

1.4.2 Disassembly/assembly of hinge assembly (for 2.5"-type LCD)

1. Remove the three screws (6 to 8), and then remove the hinge covers (1) and (2) by disengaging a total of four hooks (L⑭g, L⑭h) at the two sides.
2. Separate the SW board assembly and the FPC from the hinge assembly.

Note⑭c: *When connecting the FPC, arrange the FPC wire by winding it around the shaft (hinge pin) of the hinge assembly by two and a half turns while paying heed to the orientation of the hinge assembly and FPC.*

Note⑭d: *When disassembling/assembling the hinge assembly, pay careful attention to every part not to damage anything.*

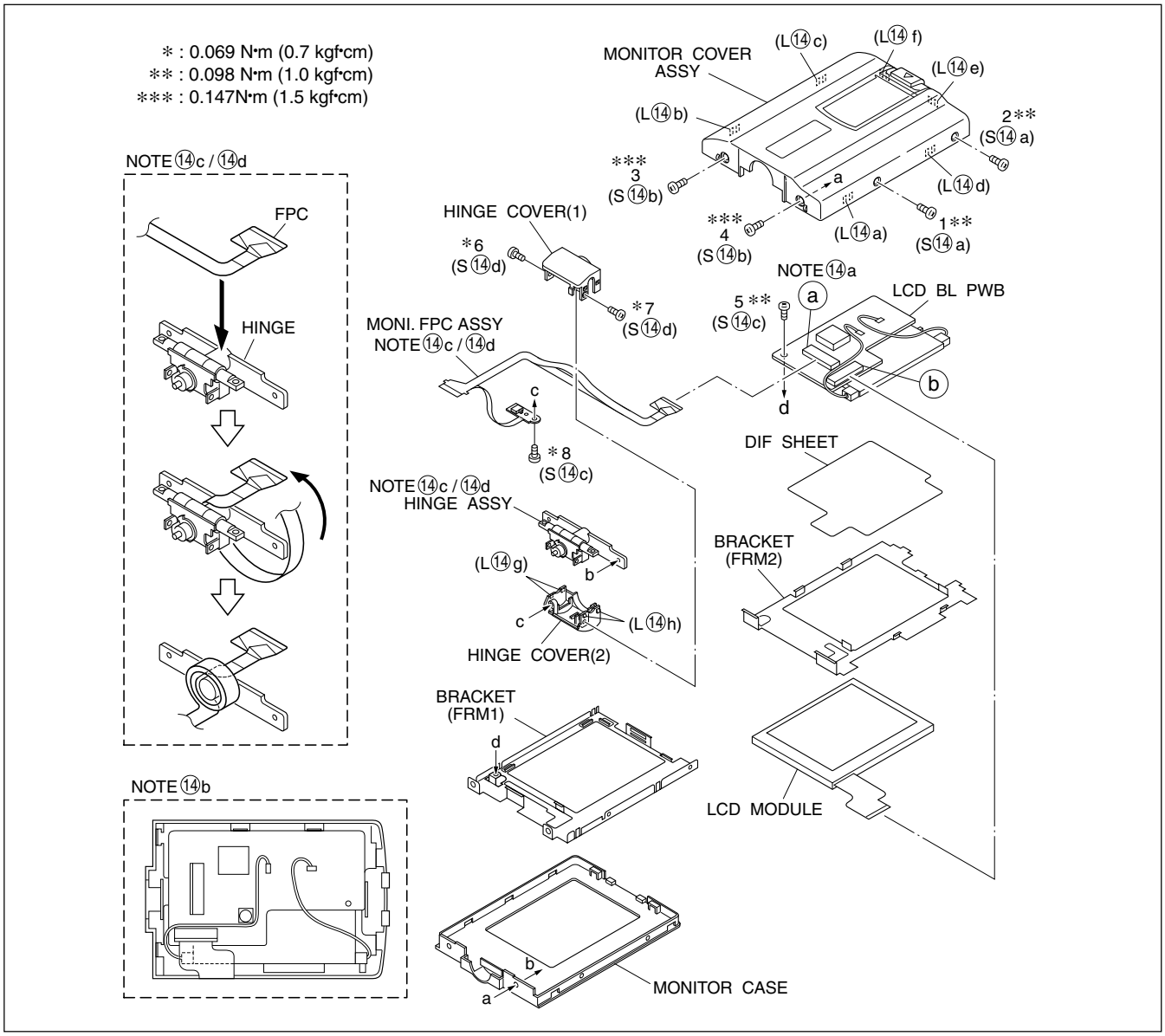


Fig. 1-4-1

1.5 ⑬ E. VF ASSEMBLY (B/W)

1.5.1 Disassembly/assembly of E.VF ASSEMBLY (for the B/W VF)

1. Remove the EYE CUP.
2. Remove the three screws (1 to 3) and then remove the CASE B (VF).
3. Remove the screw (4) to remove the LEVER (VF) and pull out the LENS ASSY.

Note⑬a: *Be careful not to lose the SPRING (VF).*

4. Remove the three screws (5 to 7) and then remove the VF HINGE ASSY.

Note⑬b: *Be careful not to damage the FPC and not to break any wires during the operation.*

5. Remove the screw (8) and the remove the CAP (VF).
6. Remove the FPC from the CASE A (VF) so that the CASE A (VF) may be unlocked.
7. Remove the HOLDER LCD (VF) while unlocking it by the both side.

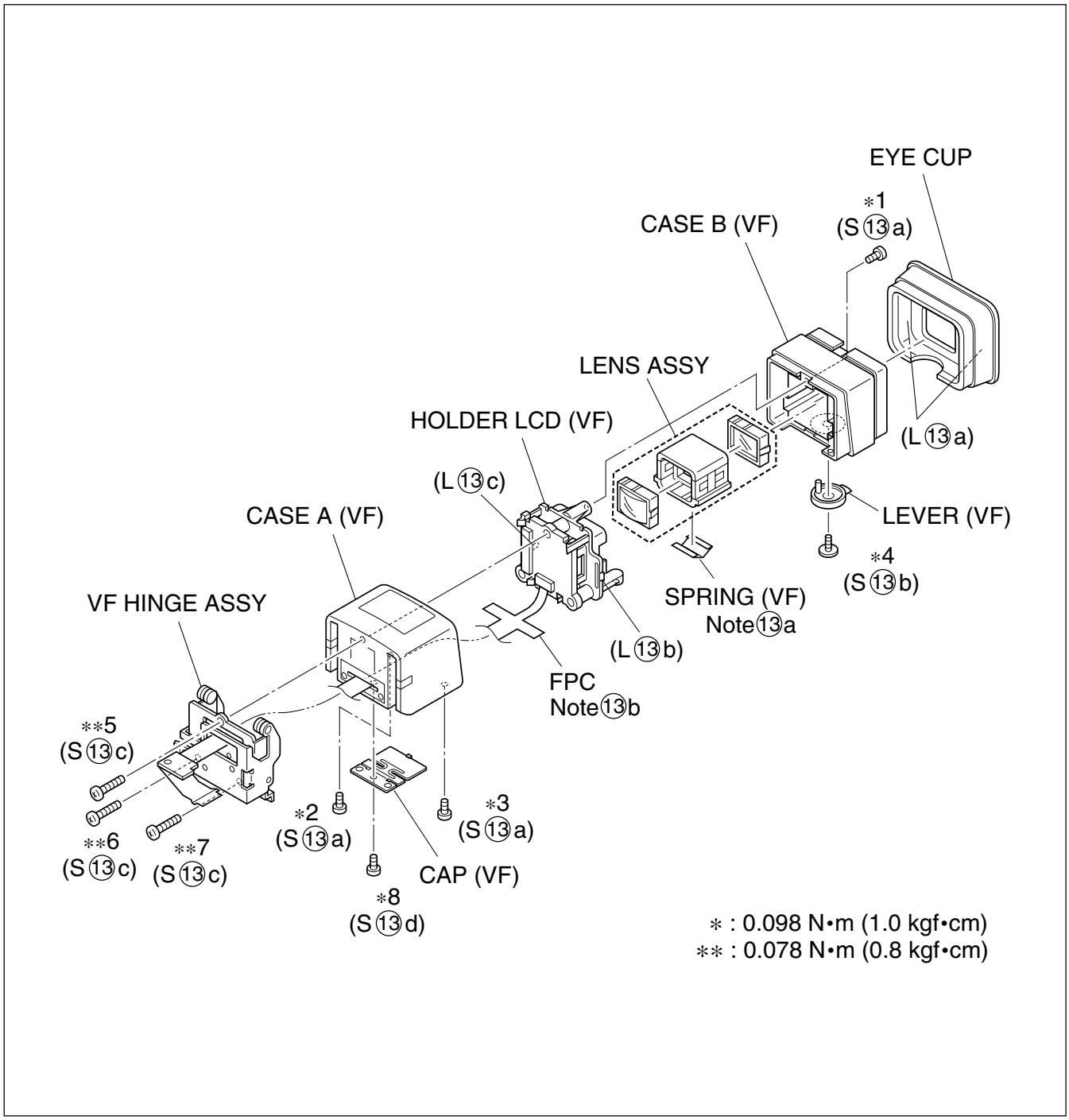


Fig. 1-5-1

1.6 DISASSEMBLY/ASSEMBLY OF ⑤OP BLOCK ASSEMBLY/CCD BOARD ASSEMBLY

1.6.1 Precautions

1. Take care in handling the CCD image sensor, optical LPF and lens components when performing maintenance etc., especially with regard to surface contamination, attached dust or scratching. If fingerprints are present on the surface they should be wiped away using either a silicon paper, clean chamois or the cleaning cloth.
2. The CCD image sensor may have been shipped with a protective sheet attached to the transmitting glass. When replacing the CCD image sensor, do not peel off this sheet from the new part until immediately before it is mounted in the OP Block Assembly.
3. The orientation of the optical LPF is an important factor for installation. If there is some marking on the LPF, be sure to note it down before removing and to reassemble it very carefully as it was referring to the marking.

1.6.2 How to remove CCD board assembly and CCD base assembly

1. Unsolder the CCD board assembly by the 14 points (SD⑤) and then remove it.
2. Remove the two screws (1, 2) and remove the CCD base assembly.

Note ⑤a: *When removing the CCD base assembly, pay heed to the CCD image sensor because the spacer rubber and optical LPF are occasionally removed together with the CCD image sensor.*

Note ⑤b: *When replacing the CCD image sensor, don't replace it individually but replace the CCD base assembly in whole with a new one.*

1.6.3 How to assemble CCD base assembly and CCD board assembly

1. Install the optical LPF with the spacer rubber attached to its CCD side in the OP block assembly.

Note ⑤c: *Pay careful attention to the orientation of the LPF.*

2. Set the CCD base assembly with careful attention to the spacer rubber not to come off the right position, and fasten them together with the two screws (1, 2).
3. Set the CCD board assembly in the CCD base assembly, and then solder it by the 14 points (SD⑤).

1.6.4 Replacement of Service Repair Parts

The service repair parts for the OP Block Assembly are as listed below.

Before replacement of these parts, remove the bracket (OP assembly) as required.

Take special care not to disconnect any of the FPC wires or cause any damage due to soldering (excessive heating).

1. Focusing motor
2. Zoom motor
3. Iris motor unit

Note ⑤d: *When replacing the focusing motor or the zoom motor, solder the FPC at a space of about 1 mm above the terminal pin.*

Note ⑤e: *The iris motor unit includes the FPC Assembly and two sensors.*

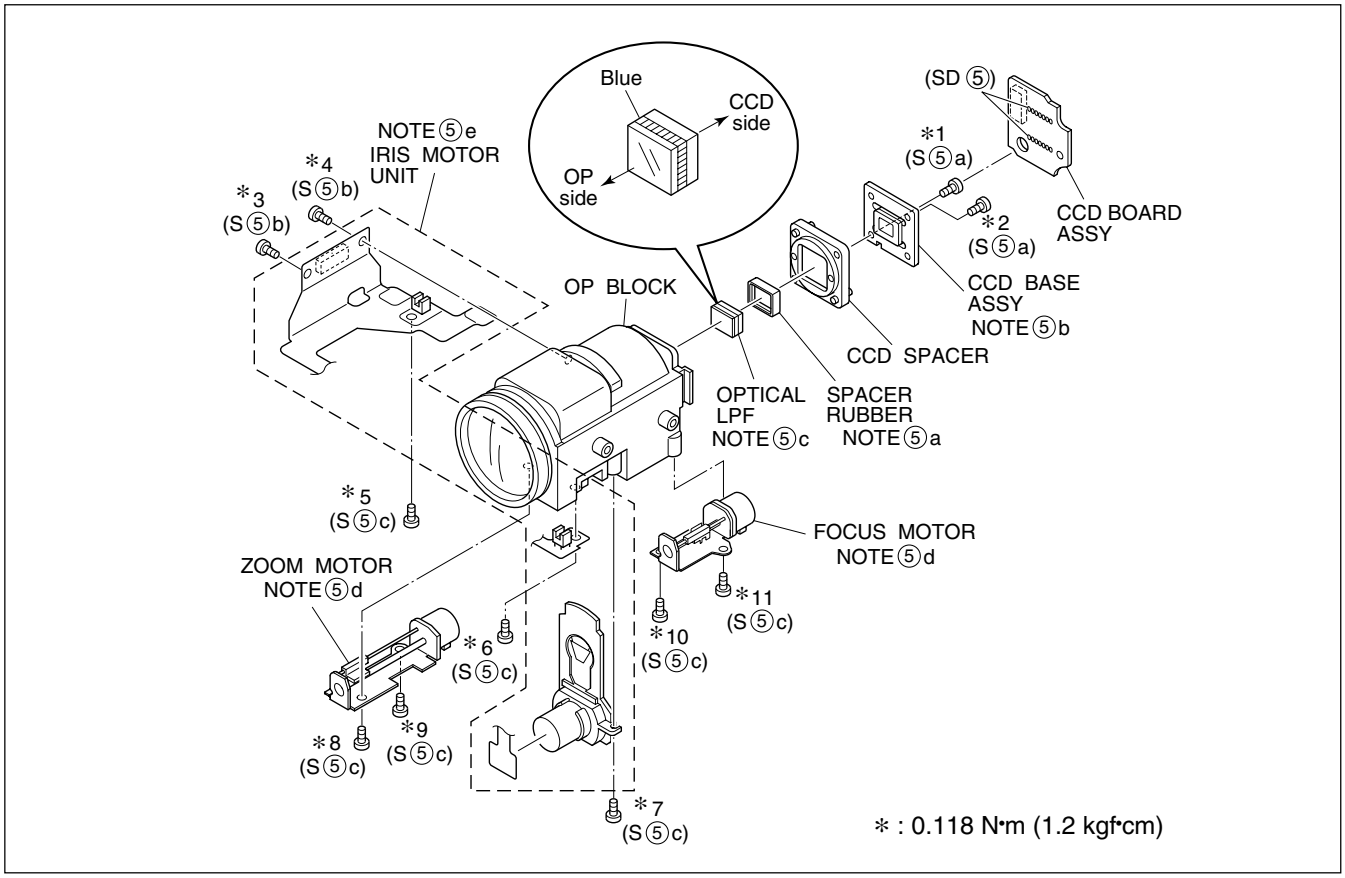


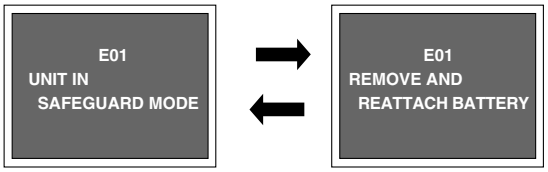
Fig. 1-6-1

1.7 EMERGENCY DISPLAY

Whenever some abnormal signal is input to the syscon CPU, an error number (E01, as an example) is displayed on the LCD monitor or (in the electronic view finder).
In every error status, such the message as shown below alternately appear over and over.

- In an emergency mode, all operations except turning on/off the POWER switch are ineffectual.

Example (in case of the error number E01):



LCD display	Emergency mode	Details	Possible cause
E01	LOADING	In the case the encoder position is not shifted to the next point though the loading motor has rotated in the loading direction for 4 seconds or more. This error is defined as [E01].	1. The mechanism is locked during mode shift. 2. The mechanism is locked at the mechanism loading end, because the encoder position is skipped during mechanism mode shift. 3. No power is supplied to the loading MDA.
E02	UNLOADING	In the case the encoder position is not shifted to the next point though the loading motor has rotated in the unloading direction for 4 seconds or more. This error is defined as [E02].	1. The mechanism is locked during mode shift. 2. The mechanism is locked at the mechanism loading end, because the encoder position is skipped during mechanism mode shift.
E03	TU & SUP REEL FG	In the case no REEL FG is produced for 4 seconds or more in the capstan rotation mode after loading was complete, the mechanism mode is shifted to STOP with the pinch roller set off. This error is defined as [E03]. However, no REEL EMG is detected in the SLOW/STILL mode.	1. The idler gear does not engage with the reel disk well. 2. Though the idler gear and reel disk are engaged with each other, the tape is not wound because of overload to the mechanism. 3. No FG pulse is output from the reel sensor. 4. No power is supplied to the reel sensor. 5. Tape transport operation takes place with a cassette having no tape inside. 6. The tape slackens and no pulse is produced until the slack is taken up and the tape comes into the normal status.
E04	DRUM FG	In the case there is no DRUM FG input in the drum rotation mode for 4 seconds or more. This error is defined as [E04], and the mechanism mode is shifted to STOP with the pinch roller set off.	1. The drum cannot be started or drum rotation is stopped because tape transport load is too high. 1) Tape tension is extremely high. 2) The tape is damaged or soiled with grease, etc. 2. The DRUM FG signal is not received by the syscon CPU. 1) Disconnection in the middle of the signal line. 2) Failure of the DRUM FG pulse generator (hall element). 3. No drum control voltage is supplied to the MDA. 4. No power is supplied to the DRUM MDA.
E05	–	–	–
E06	CAPSTAN FG	In the case no CAPSTAN FG is produced in the capstan rotation mode for 2 seconds or more. This error is defined as [E06], and the mechanism mode is shifted to STOP with the pinch roller set off. However, no CAPSTAN EMG is detected in the STILL/FF/REW mode.	1. The CAPSTAN FG signal is not received by the syscon CPU. 1) Disconnection in the middle of the signal line. 2) Failure of the CAPSTAN FG pulse generator (MR element). 2. No capstan control voltage is supplied to the MDA. 3. No power is supplied to the CAPSTAN MDA. 4. The capstan cannot be started or capstan rotation is stopped because tape transport load is too high. 1) Tape tension is extremely high. (Mechanical locking) 2) The tape is damaged or soiled with grease, etc. (Tape tangling occurs, etc.)

(DVC_03)

Table 1-7-1

Symbol No. →	①		② (⑬ / ⑭ / ⑮)									③			④			⑤ / ⑥ / ⑦				
Removing order of screw →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Place to stick screw →					✻																	
Reference drawing →	Fig. 1-3-1		Fig. 1-3-2									Fig. 1-3-3			Fig. 1-3-4			Fig. 1-3-5				
Screw tightening torque →	Ⅰ																					Ⅱ

Symbol No. →	⑧				⑨					⑩		⑪ / ⑫			⑬		⑭ / ⑮								
Removing order of screw →	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47
Place to stick screw →						✻	✻	✻	✻						✻					✻	✻				
Reference drawing →	Fig. 1-3-6				Fig. 1-3-7					Fig. 1-3-8		Fig. 1-3-9			Fig. 1-3-10		Fig. 1-3-11								
Screw tightening torque →	Ⅰ																			Ⅲ					Ⅰ

⑭ MONITOR ASSY								
Removing order of screw →	1	2	3	4	5	6	7	8
Place to stick screw →			✻	✻				
Reference drawing →	Fig. 1-4-1							
Screw tightening torque →	Ⅳ		Ⅲ		Ⅳ	Ⅴ		

⑬ E.VF ASSY(B/W)								
Removing order of screw →	1	2	3	4	5	6	7	8
Place to stick screw →								
Reference drawing →	Fig. 1-5-1							
Screw tightening torque →	Ⅳ					Ⅵ		Ⅳ

⑤ OP BLOCK ASSY											
Removing order of screw →	1	2	3	4	5	6	7	8	9	10	11
Place to stick screw →											
Reference drawing →	Fig. 1-6-1										
Screw tightening torque →	Ⅶ										

< NOTE >

1) ✻ : Dont't reuse the screw, because screw lock bond was applied to them.

2) Pay careful attention to tightening torque for each screw.

Ⅰ : 0.088N·m (0.9kgf·cm) Ⅱ : 0.196N·m (2.0kgf·cm) Ⅲ : 0.147N·m (1.5kgf·cm)

Ⅳ : 0.098N·m (1.0kgf·cm) Ⅴ : 0.069N·m (0.7kgf·cm) Ⅵ : 0.078N·m (0.8kgf·cm)

Ⅶ : 0.118N·m (1.2kgf·cm)

Table 1-8-1

SECTION 2
MECHANISM ADJUSTMENT

2.1 PRELIMINARY REMARKS ON ADJUSTMENT AND REPAIR

2.1.1 Precautions

1. When fastening parts, pay careful attention to the tightening torque of each screw. Unless otherwise specified, tighten a screw with the torque of 0.039 N•m (0.4 kgf•cm).
2. Be sure to disconnect the set from the power supply before fastening and soldering parts.
3. When disconnecting/connecting wires, be careful not to get them and their connectors damaged. (Refer to the Section 1.)
4. When replacing parts, be very careful neither to damage other parts nor to fit wrong parts by mistake.

2.1.2 Notes on procedure for disassemby/assembly

The disassembling procedure table (Table 2-4-1 on page 2-6, a part of the table is shown below for reference)shows the procedure to disassemble/reassemble mechanism parts.
Carefully read the following explanation before starting actual disassembling/reassembling work. The item numbers (circled numbers)in the following explanation correspond to those appearing under respective columns of the table.

(1) Circled numbers appearing in this column indicate the order to remove parts. When reassembling, follow these numbers in the reverse order. Circled numbers in this column correspond to those appearing in drawings of this section.

(2) This column shows part names corresponding to circled numbers in the left column.

(3) The symbol (T or B)appearing in this column shows the side which the objective part is mounted on.
T =the upper side, B =the lower side

(4) Symbols appearing in this column indicate drawing numbers.
Step Part Name Fig. Point Note Remarks

(5) This column indicates parts and points such as screws, washers, springs, and others to be removed/fitted for disassembling/reassembling the mechanism. Besides such the parts, this column occasionally indicates working points.

P = Spring
W = Washer
S = Screw
* = Lock (L),soldering (SD),shield,connector (CN), etc.

Example
- Remove (W1)=Washer W1.
- ∗Remove the solder at (SD①)=Point SD①.
- ∗Disconnect Ⓐ =Connector Ⓐ .

(6) Numbers in this column represent the numbers of notes in the text. For example, "①" means "Note ①".
(For parts that need phase adjustment after reassembling, refer to "2.6 MECHANISM ADJUSTMENTS".)

(7) This column indicates required after disassembling/reassembling work such as phase adjustment or mechanism adjustment.

NO.	PART NAME		FIG.	POINT	NOTE	REMARKS
Ⓐ	Cassette housing assembly	T	Fig. 2-4-5	3(S1),(L1a)-(L1d)	1a, 1b, 1c, 1d	Adjustment
2a	Reel disk (SUP) assembly	T	Fig. 2-4-6	(W2)	2a, 2b	
2b	Reel disk (TU) assembly	T		(W2)	2a, 2b	
2c	Reel cover assembly	T		(S2b),2(S2a),(W2)	2d	
3a	Tension arm assembly	T	Fig. 2-4-7	(W3a)	3b	
3b	Release guide assembly	T		-	3a	
3c	Idler arm assembly	T		(W3b)	-	
3d	Guide arm assembly	T		-	3a	
3e	Pinch roller arm assembly	T		(W3a)	-	
4a	Cleaner arm assembly	T	Fig. 2-4-8	(L4a)	4a	
4b	Slant pole arm assembly	T		(W4),(L4b),(P4a),(P4b)	4b	
4c	Drum assembly	T		3(S4)	-	
5a	Guide roller (S) assembly	T	Fig. 2-4-9	(P5)	5a	
5b	Rail assembly	T		3(W5a), (W5b)	5b, 5c	

(1) (2) (3) (4) (5) (6) (7)

2.2 JIGS AND TOOLS REQUIRED FOR DISASSEMBLY, ASSEMBLY AND ADJUSTMENT

2.2.1 Tools required for adjustments

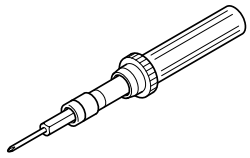
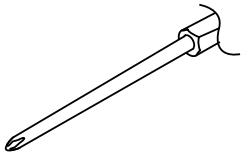
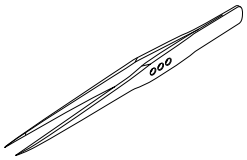
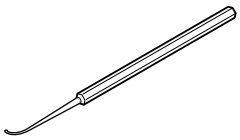
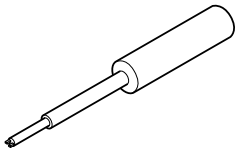
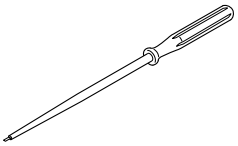
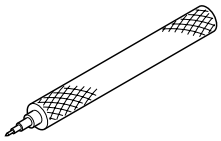
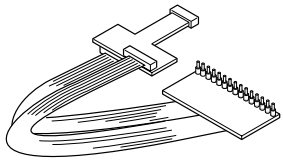
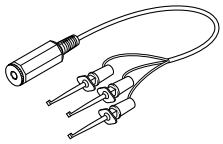
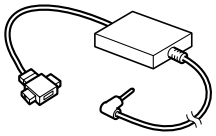
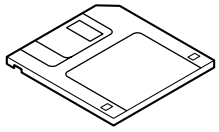
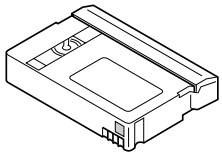
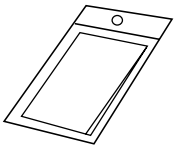
1 Torque driver YTU94088	2 Bit YTU94088-003
	
3 Tweezers P-895	4 Chip IC replacement jig PTS40844-2
	
5 Guide driver YTU94148A	6 Adjustment driver YTU94028
	
7 Slit washer installation jig YTU94121A	8 Jig connector cable YTU93082G
	
9 Communication cable YTU93107A	10 PC cable QAM0099-002
	
11 Service support system YTU94057-60	12 Alignment tape MC-2
	
13 Cleaning cloth KSMM-01	
	

Table 2-2-1

1. **Torque driver**
   Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
2. **Bit**
   This bit is slightly longer than those set in conventional torque drivers.
3. **Tweezers**
   To be used for removing and installing parts and wires.
4. **Chip IC replacement jig**
   To be used for adjustment of the camera system.
5. **Guide driver**
   To be used to turn the guide roller to adjustment of the linarity of playback envelope.
6. **Adjustment driver**
   To be used for adjustment.
7. **Slit washer installation jig**
   To be used to install slit washers.
8. **Jig connector cable**
   Connected to CN105 of the main board and used for electrical adjustment, etc.
9. **Communication cable**
   Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.
10. **PC cable**
    To be used to connect the VideoMovie and a personal computer with each other when a personal computer is used for adjustment.
11. **Service support system**
    To be used for adjustment with a personal computer.
12. **Alignment tape**
    To be used for check and adjustment of interchangeability of the mechanism.
13. **Cleaning cloth**
    Recommended cleaning cloth to wipe down the video heads, mechanism (tape transport system), optical lens surface.

2.3 DISASSEMBLY/ASSEMBLY OF MECHANISM ASSEMBLY

2.3.1 General statement

The mechanism should generally be disassembled/assembled in the EJECT mode (ASSEMBLY mode). (Refer to Fig. 2-3-1.)
However, when the mechanism is removed from the main body, it is set in the STOP mode. Therefore, after the mechanism is removed from the main body, supply 3 V DC to the electrode on the top of the loading motor to enter the mechanism mode into the EJECT mode compulsory.

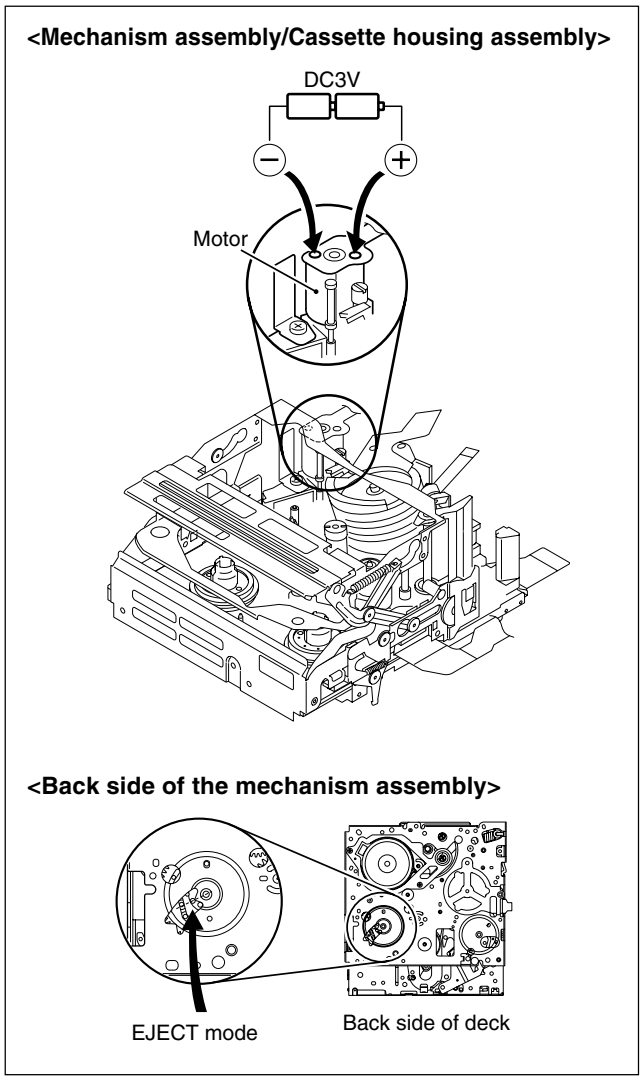


Fig. 2-3-1

2.3.2 Explanation of mechanism mode

The mechanism mode of this model is classified into six modes as shown in Table 2-3-1. Each mechanism mode can be distinguished from others by the relative position of "○" mark on the sub cam gear to the inner or outer protrusion on the main deck.
Refer to Fig. 2-3-2 to 2-3-8 below.
The EJECT mode, C IN mode and SHORT FF mode should be recognized by the relative position of the "○" mark to the inner protrusion, while the STOP mode, REV mode and PLAY mode should be recognized by that to the outer protrusion.

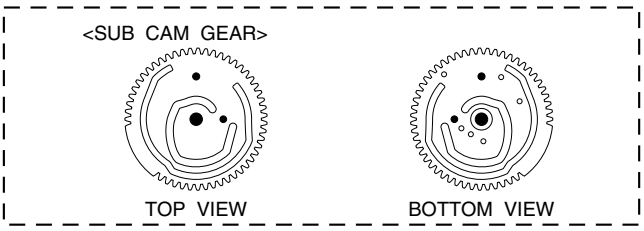


Fig. 2-3-2

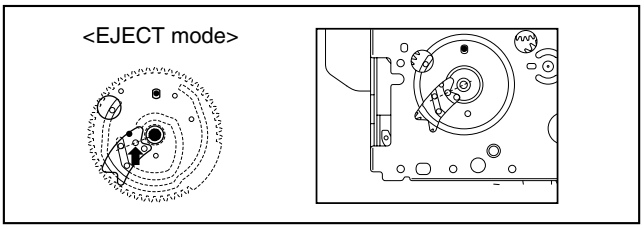


Fig. 2-3-3

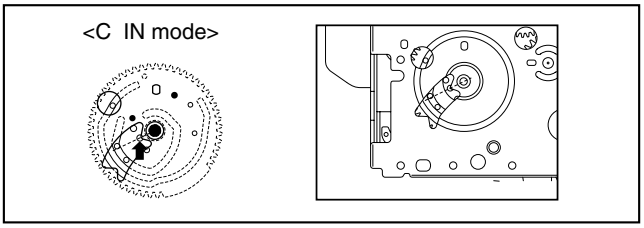


Fig. 2-3-4

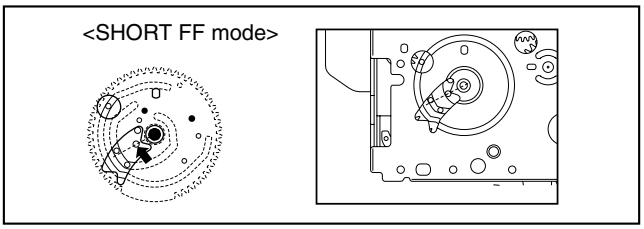


Fig. 2-3-5

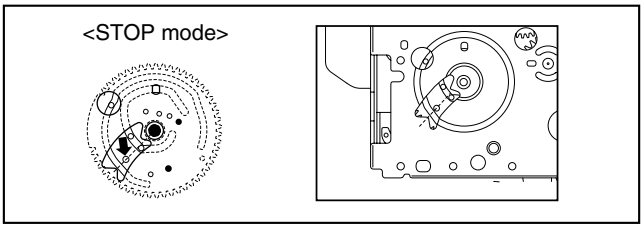


Fig. 2-3-6

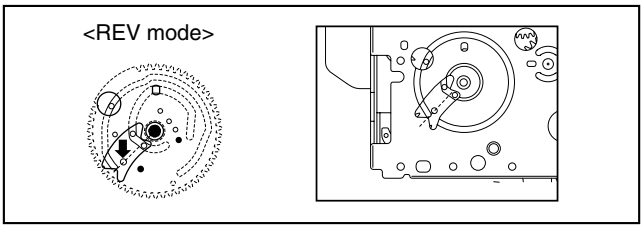


Fig. 2-3-7

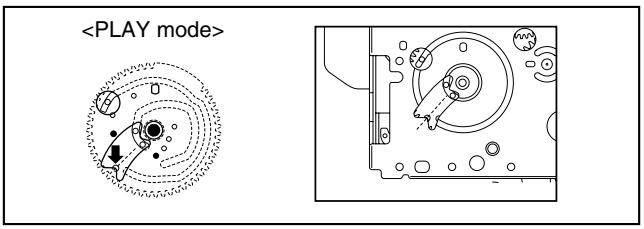


Fig. 2-3-8

2.3.3 Mechanism timing chart

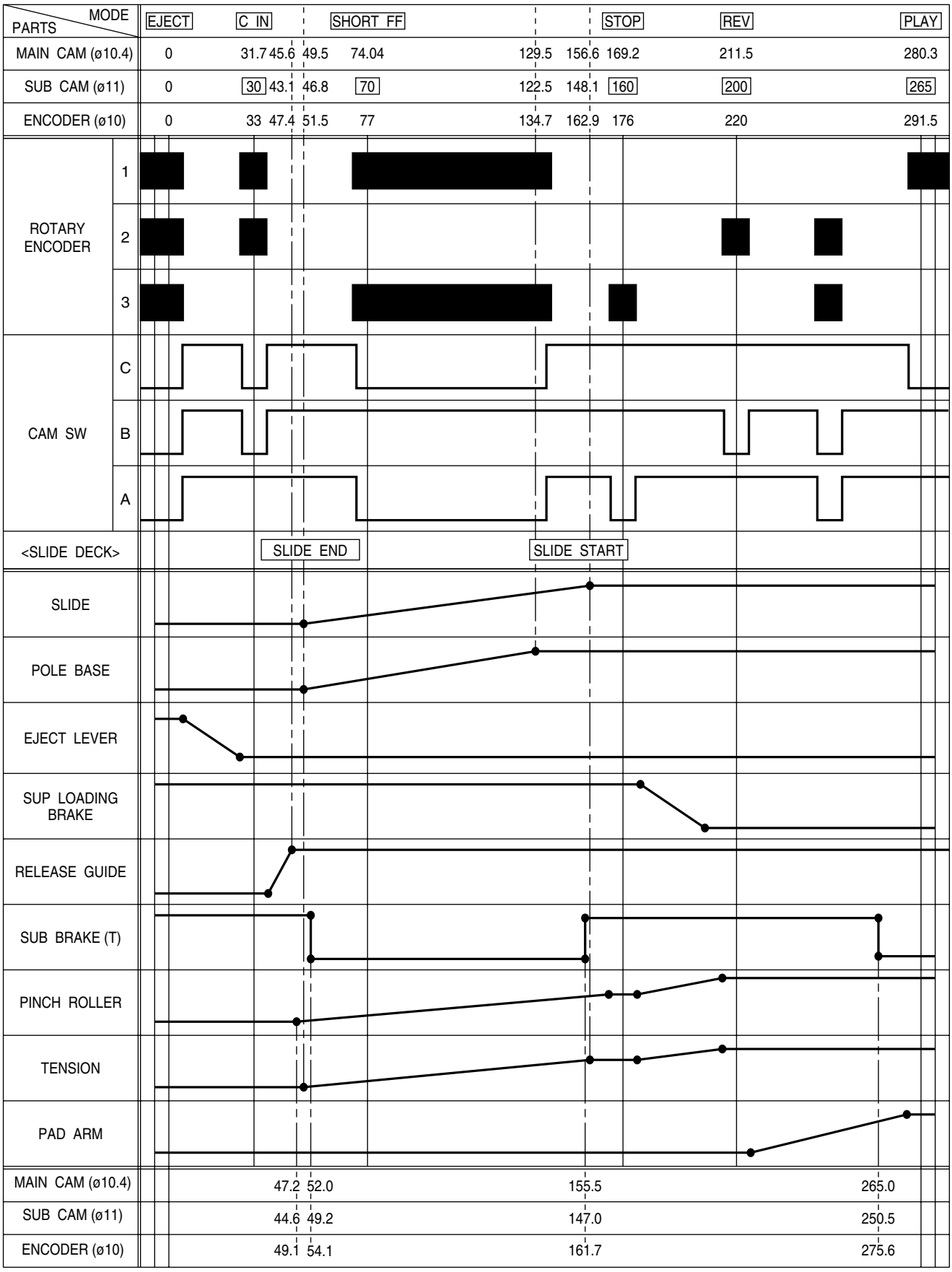


Table 2-3-1

2.4 DISASSEMBLY/ASSEMBLY OF MECHANISM ASSEMBLY

2.4.1 Follow chart

1. Configuration

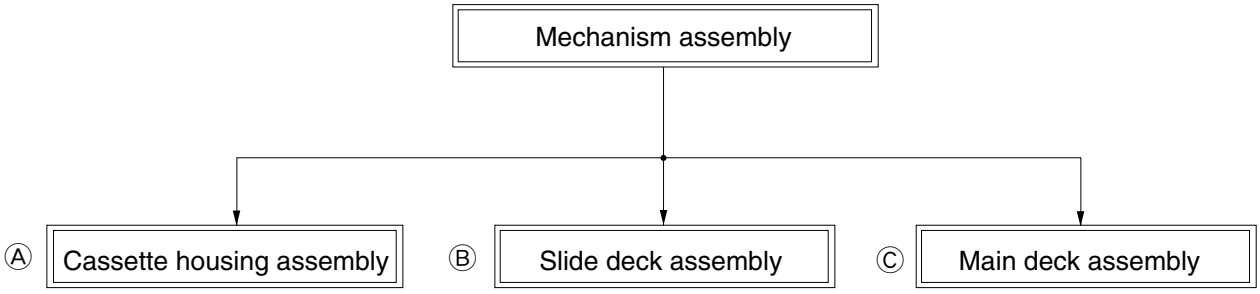


Fig. 2-4-1

2. Procedures for disassembly

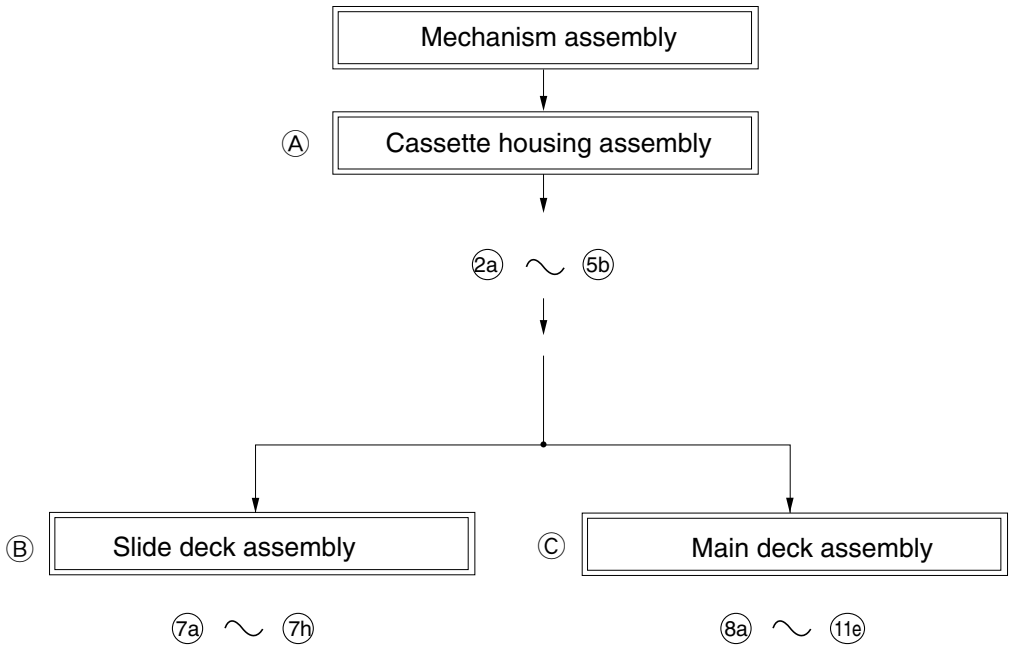


Fig. 2-4-2

3. Disassembling procedure table

NO.	PART NAME		FIG.	POINT	NOTE	REMARKS
Ⓐ	Cassette housing assembly	T	Fig. 2-4-5	3(S1),(L1a)-(L1d)	1a, 1b, 1c, 1d	Adjustment
2a	Reel disk (SUP) assembly	T	Fig. 2-4-6	(W2)	2a, 2b	
2b	Reel disk (TU) assembly	T		(W2)	2a, 2b	
2c	Reel cover assembly	T		(S2b),2(S2a),(W2)	2c, 2d	
3a	Tension arm assembly	T	Fig. 2-4-7	(W3a)	3b	
3b	Release guide assembly	T		-	3a	
3c	Idler arm assembly	T		(W3b)	-	
3d	Guide arm assembly	T		-	3a	
3e	Pinch roller arm assembly	T		(W3a)	-	
4a	Cleaner arm assembly	T	Fig. 2-4-8	(L4a)	4a	
4b	Slant pole arm assembly	T		(W4),(L4b),(P4a),(P4b)	4b	
4c	Drum assembly	T		3(S4)	-	
5a	Guide roller (S) assembly	T	Fig. 2-4-9	(P5)	5a, 5b	
5b	Rail assembly	T		3(W5a), (W5b)	5c, 5d	
Ⓑ	Slide deck assembly / Ⓒ Main deck assembly	T	Fig. 2-4-10	(W6),(L6a)-(L6d)	6a, 6b	(Adjustment)
Ⓑ	Slide deck assembly					
7a	Loading brake assembly	T	Fig. 2-4-11	(W7),(L7a),(P7a)	7e	Adjustment
7b	Guide pin (S)	T		(S7a)	-	
7c	Pad arm assembly	T		(W7),(L7b),(P7b)	7d	
7d	Slide guide plate assembly	T		(S7b)	7c	Adjustment
7e	Collar	T		-	7a	
7f	Collar	T		-	7a	
7g	Sub brake assembly	T		(W7),(L7c),(P7c)	7b	
7h	Control plate assembly	T		2(W7),(L7d),(P7d)	7b	
Ⓒ	Main deck assembly					
8a	Tension lever assembly	T	Fig. 2-4-12	-	8c	
8b	Slide lever assembly	T		-	8b	
8c	Brake control lever assembly	T		-	8a	
9a	Loading guide	T	Fig. 2-4-13	(S9)	-	
9b	Timing belt	T		-	9b	
9c	Center gear assembly	T		-	-	
9d	Motor bracket assembly	T		2(S9)	9a	
9e	Worm wheel	T		(W9)	-	(Phase adjustment)
9f	Gear holder	T		(S9)	-	
10a	Main cam gear	T	Fig. 2-4-14	(S10)	10b	Phase adjustment
10b	Brake control plate	T		(L10)	10b	Phase adjustment
10c	Rotary encoder	T		(S10),(W10a)	10a	Phase adjustment
10d	Connect gear	T		(W10a)	-	(Phase adjustment)
10e	Reel drive pulley assembly	T		(W10b)	-	
11a	Catcher (T) assembly	T	Fig. 2-4-15	2(S11)	-	
11b	Capstan motor	T		2(S11)	-	
11c	Charge arm assembly	T		(W11)	11	
11d	Sub cam gear	T		(S11)	-	Phase adjustment
11e	PWB holder	B		2(S11)	-	

Table 2-4-1

< TOP VIEW >

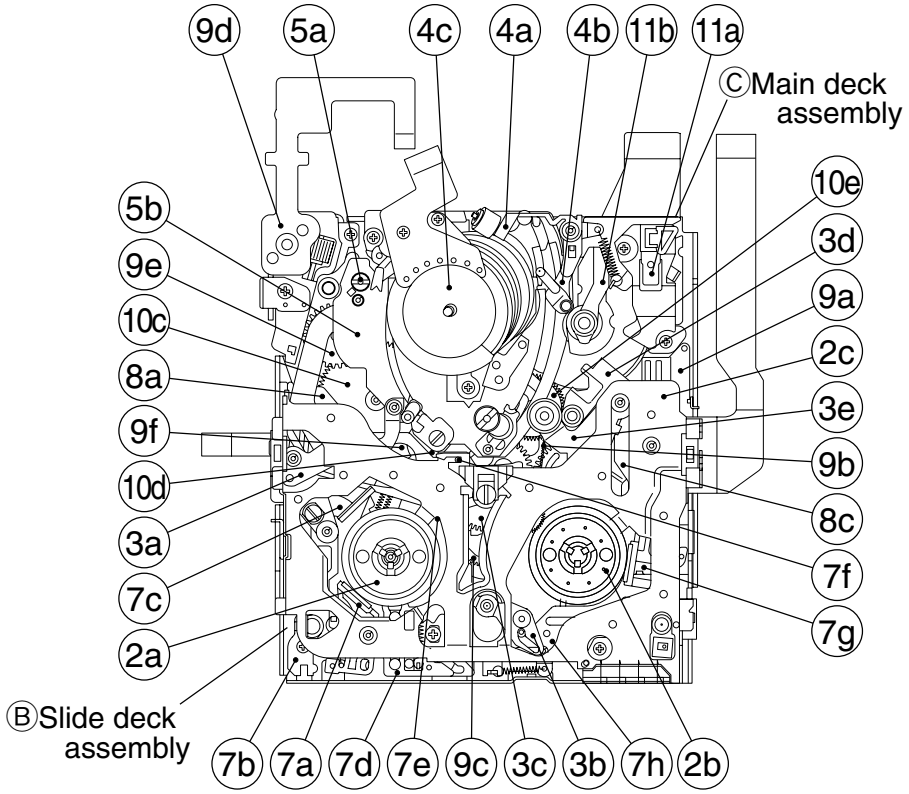


Fig. 2-4-3

< BOTTOM VIEW >

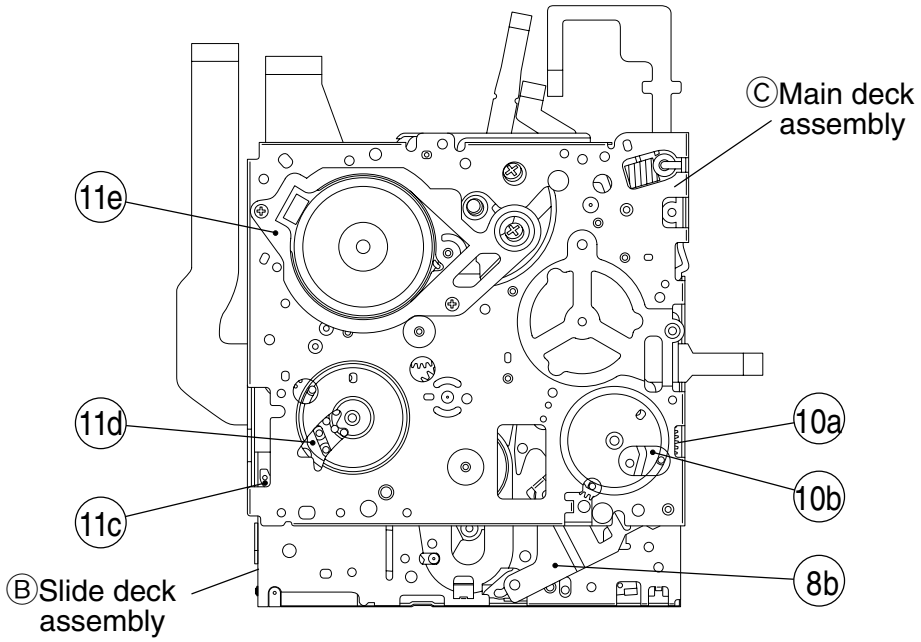


Fig. 2-4-4

2.4.2 Disassembly/assembly

1. Ⓐ Cassette housing assembly

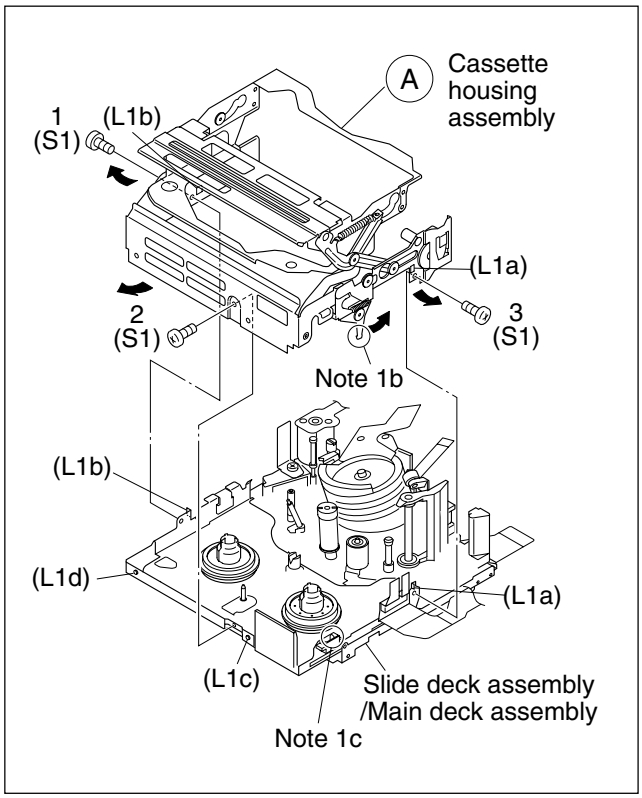
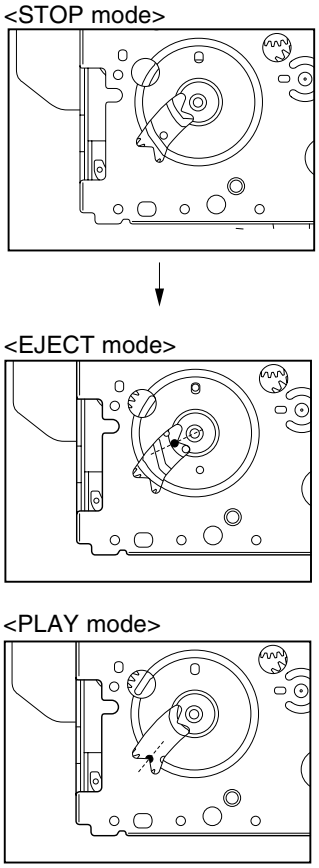


Fig. 2-4-5



Note 1a:
Shift the mechanism mode from the STOP mode to the EJECT mode.

Note 1b:
Reassemble the cassette housing assembly to the mechanism as the cancel lever is moved in the direction of the arrow.

Note 1c:
When reassembling the cassette housing to the mechanism, make sure that there is no deformation in the frame or no damage to the switches, etc.

Note 1d:
After reassembling the component parts, check the mechanism operation in the PLAY mode.
For details of checking method, refer to "2.6.1 assembling slide deck assembly and main deck assembly".

2. (2a) Reel disk (SUP) assembly
(2b) Reel disk (TU) assembly
(2c) Reel cover assembly

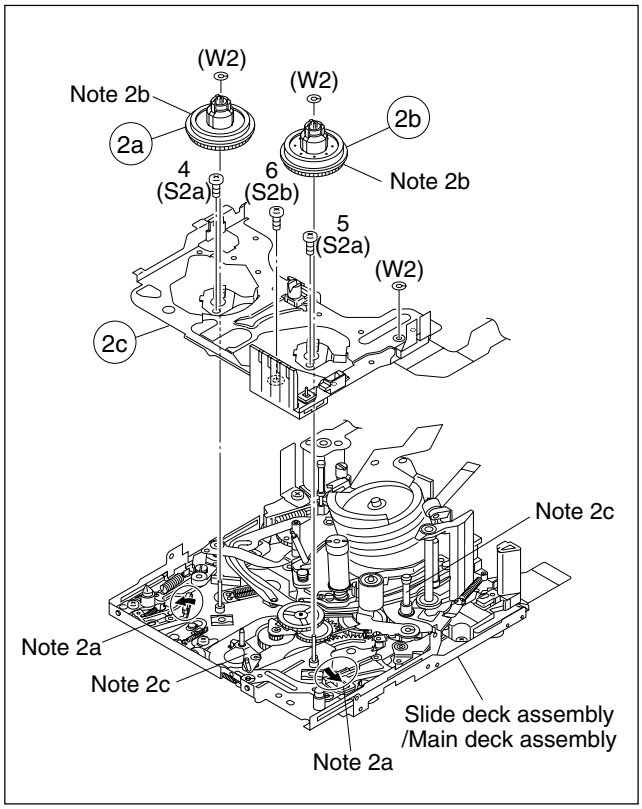
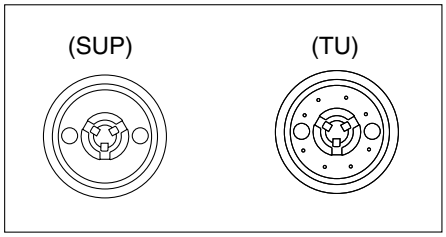


Fig. 2-4-6

Note 2a:
When removing the reel disk assembly, be careful not to break the brake pad which applies lateral pressure to the reel disk.

Note 2b:
Be careful not to make a mistake in installing the reel disk. The SUP reel disk and TU reel disk can be distinguished from each other by the appearance as shown below.



Note 2c:
When reassembling the cassette housing to the mechanism, make sure that there is no deformation in the frame or no damage to the switches, etc.

Note 2d:
When fitting the reel cover assembly to the set, carefully tighten the screw with the specified tightening torque of 0.069N•m (0.7kgf•cm).

3. (3a) Tension arm assembly/ (3b) Release guide assembly (3c) Idler arm assembly/ (3d) Guide arm assembly (3e) Pinch roller arm assembly

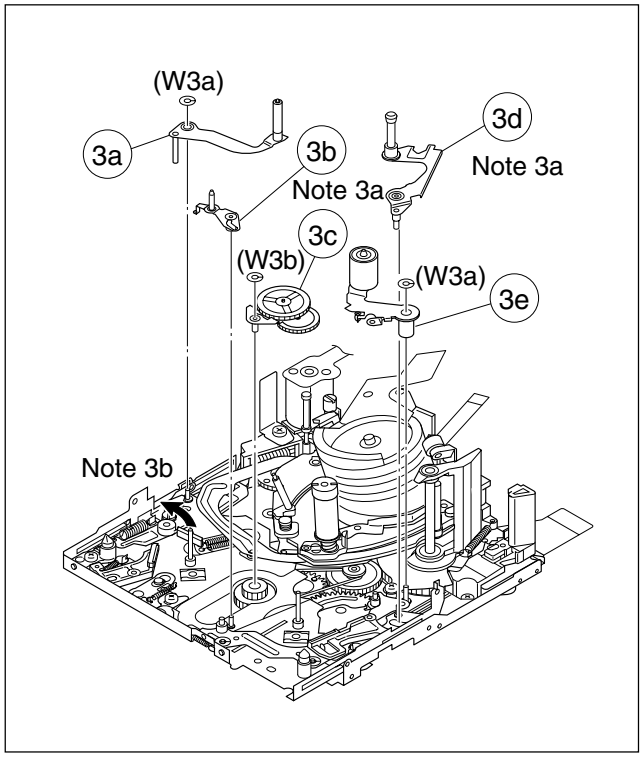
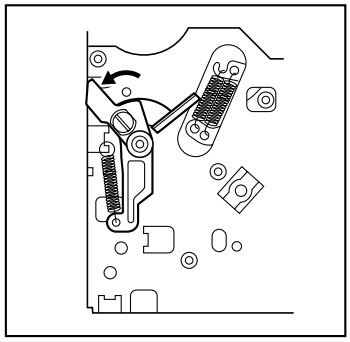


Fig. 2-4-7

Note 3a:
When removing the reel cover assembly, pay heed to release guide assembly and guide arm assembly. For the guide arm assembly is just inserted into the slide deck assembly from the upside and it is apt to come off after the reel cover assembly is removed.

Note 3b:
Reassemble the tension arm assembly to the mechanism as the pad arm assembly is moved to the extent in the direction of the arrow.



4. (4a) Cleaner arm assembly/ (4b) Slant pole arm assembly (4c) Drum assembly

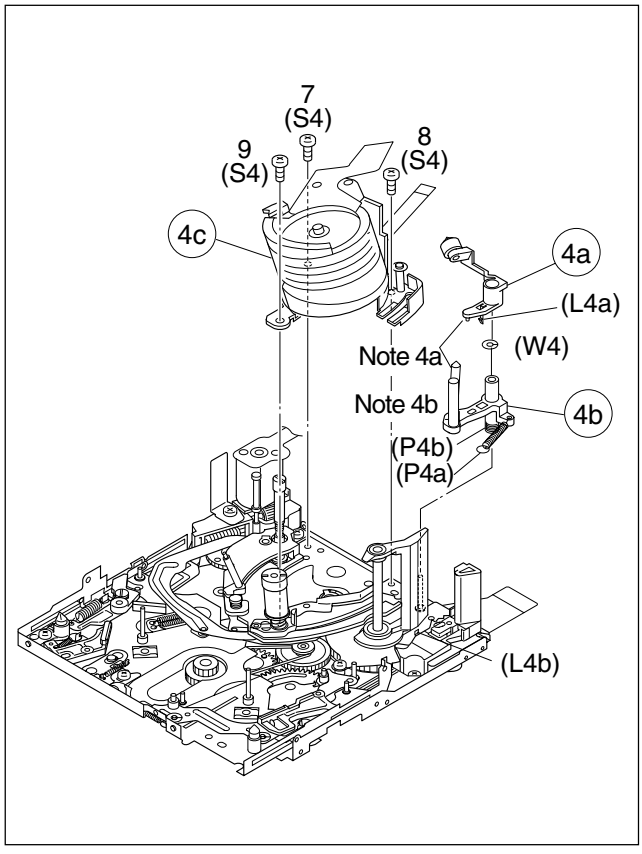
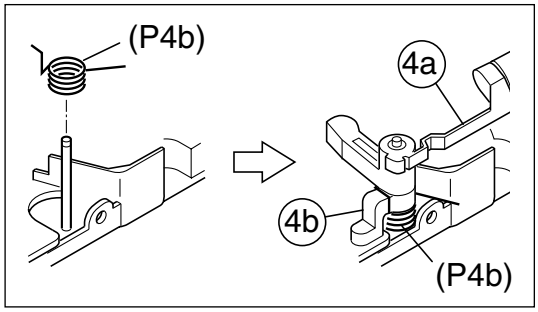


Fig. 2-4-8

Note 4a:
When removing the cleaner arm assembly, it is recommended to remove the slant pole arm assembly together with it except the case of a single unit replacement, because the hook (L4a) is hard to disengage.

Note 4b:
How to set the coil spring (P4b).



5. (5a) Guide roller (S) assembly/ (5b) Rail assembly

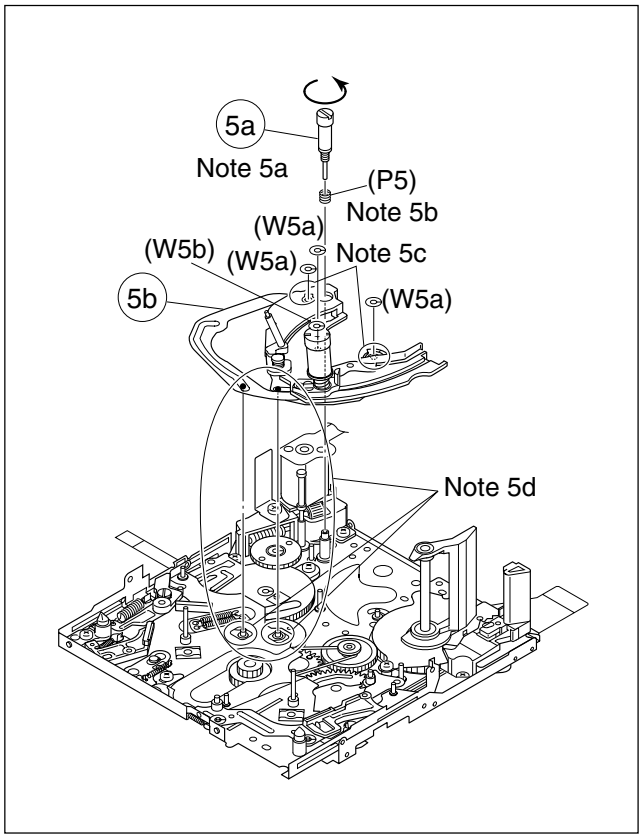
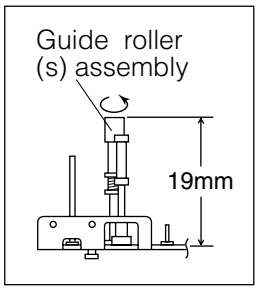


Fig. 2-4-9

Note 5a:
When reassembling, insert the tip of the guide roller with the coil spring put on it into the hole on the main deck. Tighten the guide roller by about 6 turns so that the height of the guide roller assembly is 19 mm or so as shown in the figure.



Note 5b:
Pay careful attention to the spring not to lose it.

Note 5c:
Pay careful attention to the engagement of the rail assembly's arm ends because they easily come off the engagement. Moreover, make sure that there is neither deformation nor damage observed in them.

Note 5d:
When removing the rail assembly, check to see if the collar is securely set in the arm groove.

6. (B) Slide deck assembly/ (C) Main deck assembly

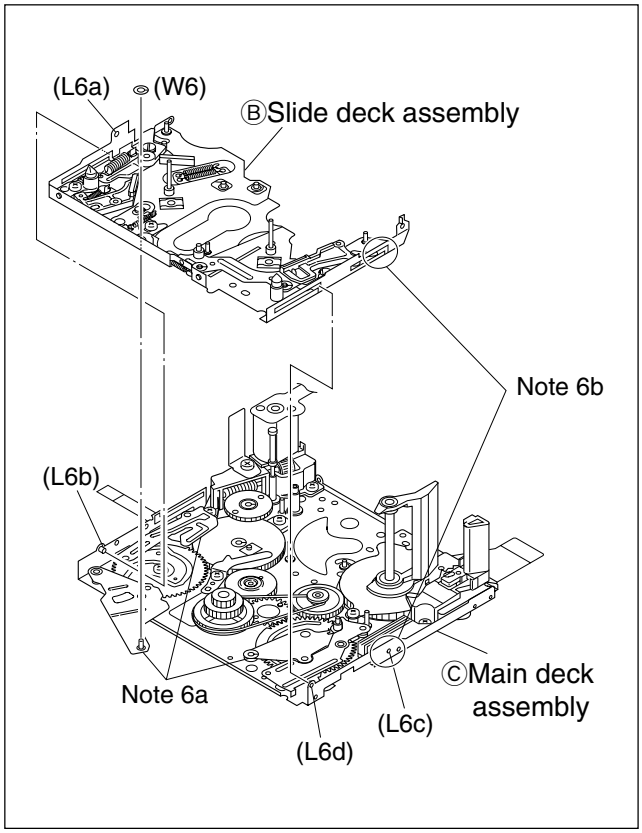
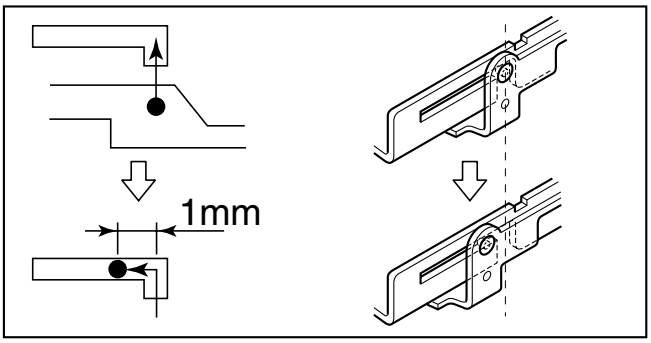


Fig. 2-4-10

Note 6a:
When removing the slide deck assembly, pay heed to the three components of the following because they are apt to come off after the slide deck assembly is removed.

(8a) Tension lever assembly/ (8b) Slide lever assembly
(8c) Brake control lever assembly
For reassembling those components, refer to Fig. 2-4-12.

Note 6b:
When reassembling the slide deck assembly to the main deck assembly, combine them with each other by the side grooves and then slide the slide deck assembly by 1 mm or so.



7. (7a) Loading brake assembly/ (7b) Guide pin (S)
(7c) Pad arm assembly/ (7d) Slide guide plate assembly
(7e) Collar/ (7f) Collar/ (7g) Sub brake assembly
(7h) Control plate assembly

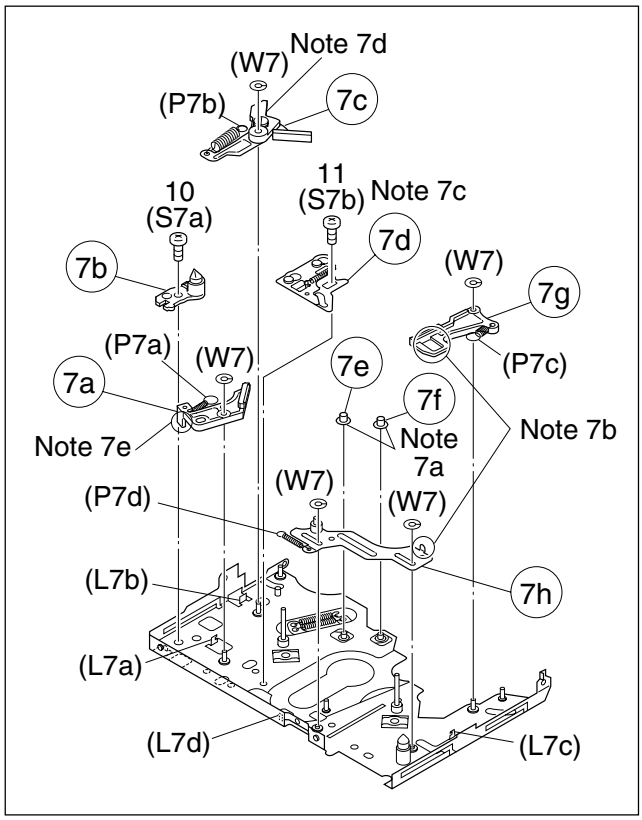


Fig. 2-4-11

8. (8a) Tension lever assembly/ (8b) Slide lever assembly
(8c) Brake control lever assembly

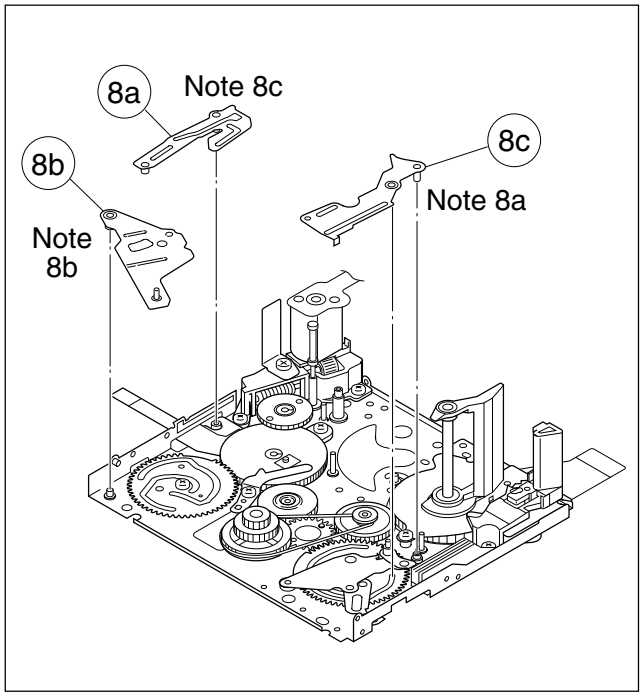
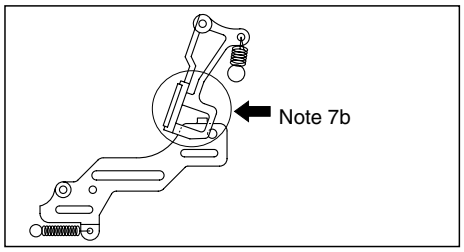


Fig. 2-4-12

Note 7a:
Don't remove these parts unreasonably. If they are removed for some reason, be very careful not to lose them.

Note 7b:
When reinstalling the sub brake assembly, set the control plate assembly so that its hook is set in the □ part of the sub brake assembly.



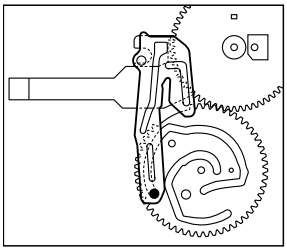
Note 7c:
Since the slide guide plate assembly controls the slide deck assembly so that it exactly slides the main deck assembly, it must exactly be assembled in the PLAY mode. Therefore, temporarily fix the slide guide plate assembly in this stage. For details of reassembling procedure, refer to "2.6.1 Assembling slide deck assembly and main deck assembly" .

Note 7d:
The pad arm assembly controls the tension level of the tension arm assembly. For adjustment of the tension arm assembly, refer to "2.6.2 Locating tension pole".

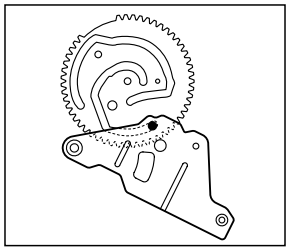
Note 7e:
When reinstalling the load brake assembly, slightly lift the slide deck assembly upwards because the lower part of the load brake assembly sticks out of the slide deck assembly.

Note 8a, 8b, 8c:
For refitting the respective parts, refer to the following figures

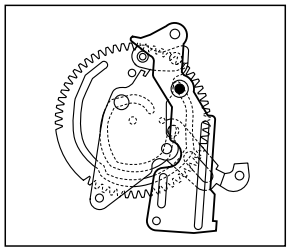
(8a) Tension lever assembly



(8b) Slide lever assembly



(8c) Brake control lever assembly



9. (9a) **Loading guide/** (9b) **Timing belt**
(9c) **Center gear assembly/** (9d) **Motor bracket assembly**
(9e) **Worm wheel/** (9f) **Gear holder**

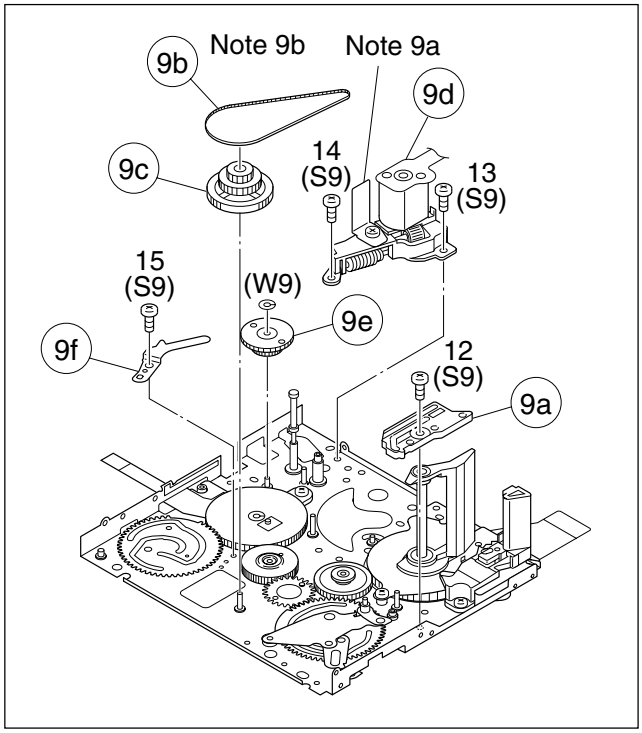


Fig. 2-4-13

Note 9a:
Carefully handle the DEW sensor. (Don't touch the sensor surface in particular.)

Note 9b:
When engaging the timing belt, make sure that it securely engages with the gears of both the center gear assembly and reel drive pulley assembly.

10. (10a) **Main cam gear/** (10b) **Brake control plate**
(10c) **Rotary encoder/** (10d) **Connect gear**
(10e) **Reel drive pulley assembly**

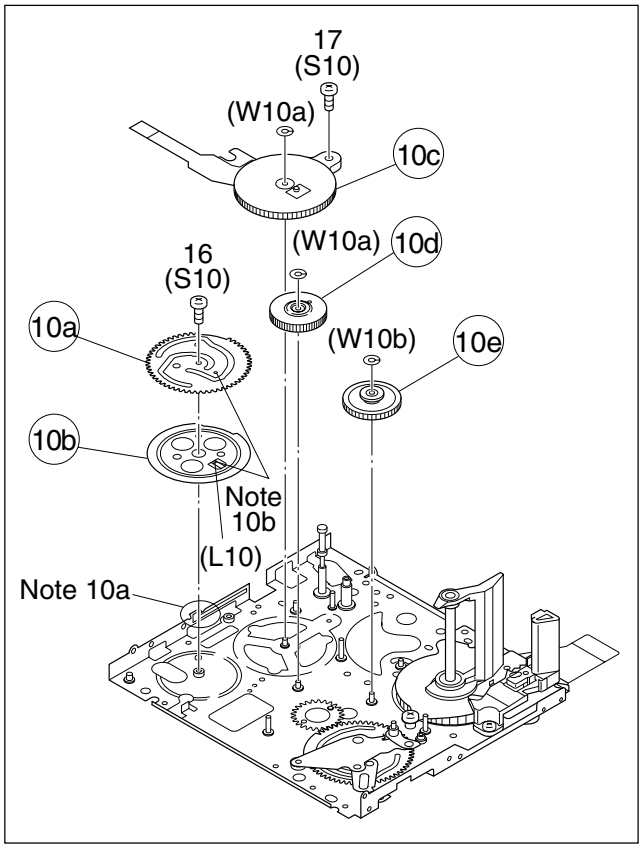
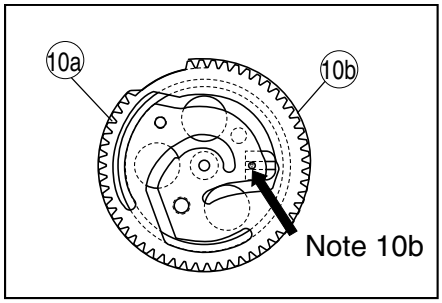


Fig. 2-4-14

Note 10a:
When removing/refitting parts, pay careful attention to the flexible board and so on not to damage them.

Note 10b:
When reinstalling the main cam gear and the brake control plate, first fit them together so that the protrusion on the brake control plate is set in the slot on the main cam gear as shown below, next install the two together to the main deck assembly.



11. (11a) Catcher (T) assembly/ (11b) Capstan motor
(11c) Charge arm assembly/ (11d) Sub cam gear
(11e) PWB holder

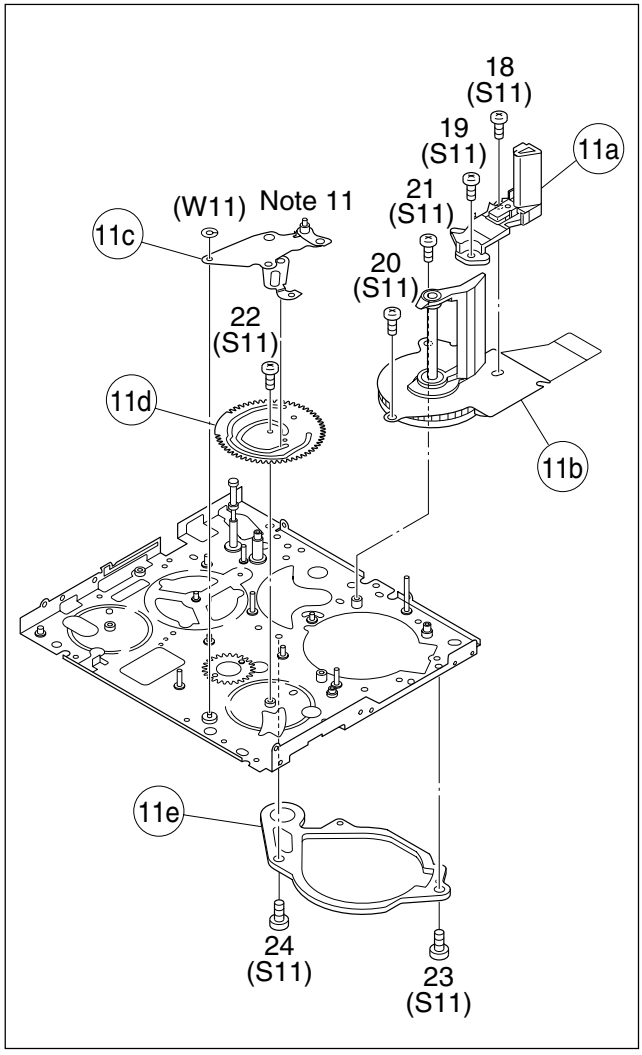
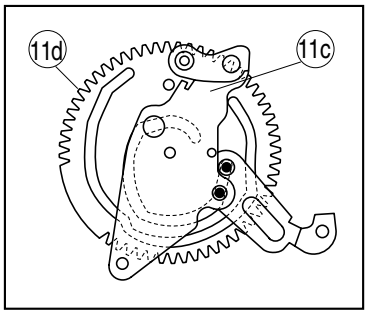
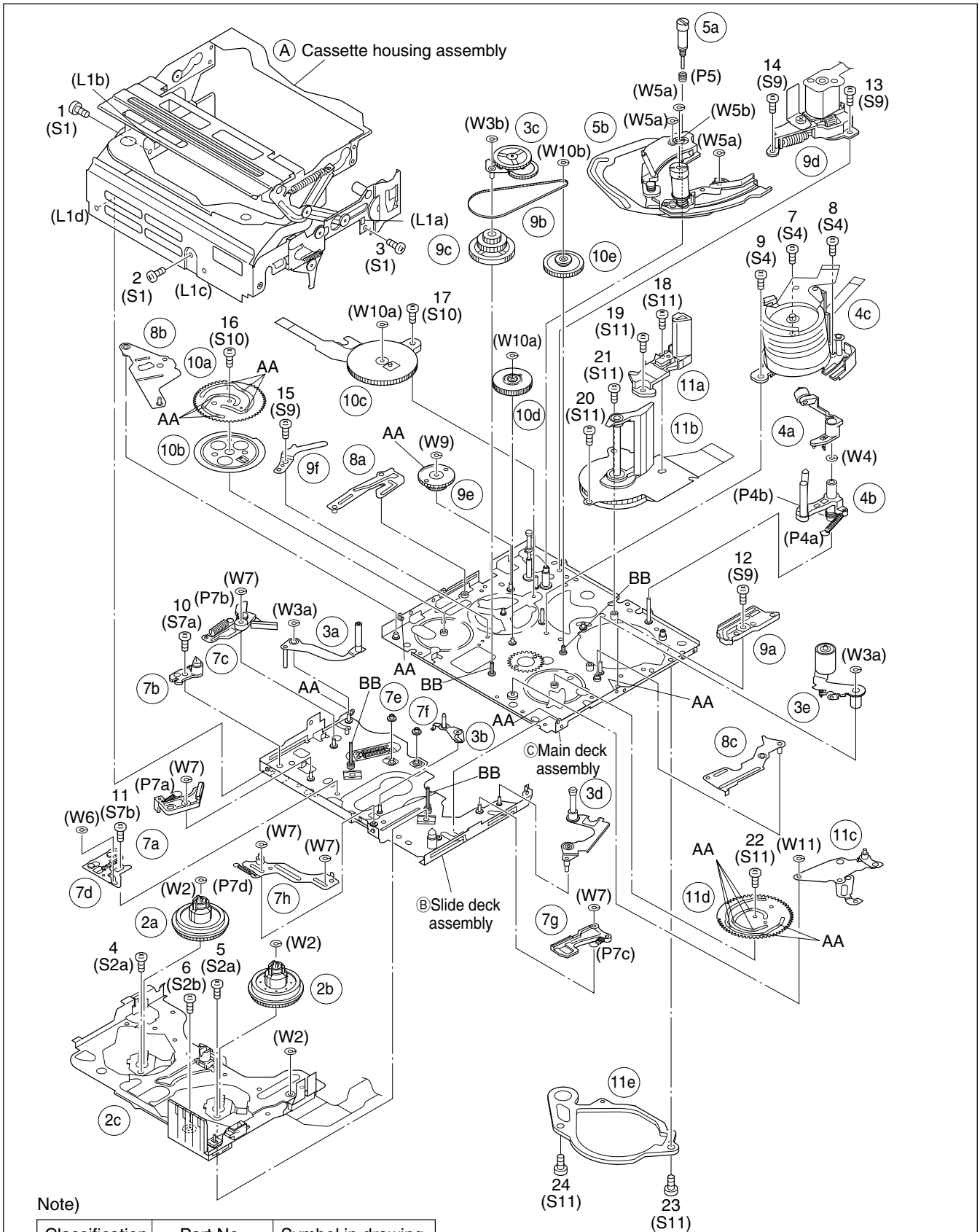


Fig. 2-4-15

Note 11:
The following figure shows how to put the charge arm assembly and sub cam gear assembly together.



2.4.3 List of procedures for disassembly

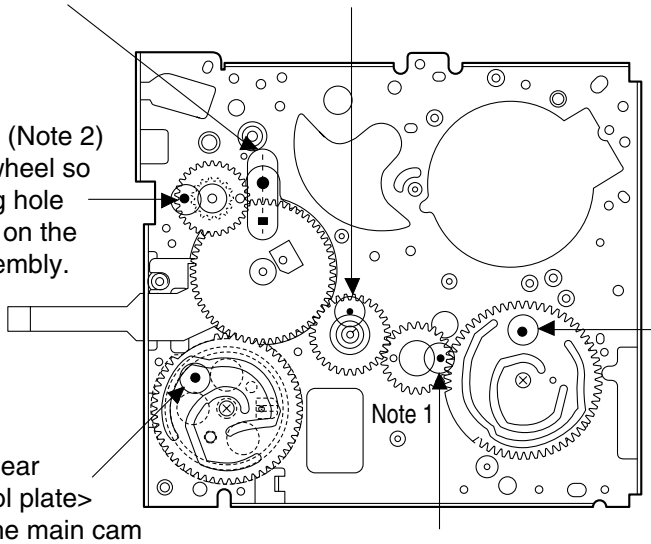


Note)

Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB

Fig. 2-4-16

2.5 CHECKUP AND ADJUSTMENT OF MECHANISM PHASE



<Rotary encoder>
Set the "■" of the rotary part at the tapped hole as shown in the figure.

<Connect gear> (Note 2)
Set the connect gear so that its locating hole meets the hole on the main deck assembly.

<Worm wheel> (Note 2)
Set the worm wheel so that its locating hole meets the hole on the main deck assembly.

<Sub cam gear>
Set the sub cam gear so that its locating hole meets the hole on the main deck assembly. This state represents that the mechanism is in the EJECT mode, which is the "mechanism assembly mode".

<Main cam gear /Brake control plate>
After fitting the main cam gear and brake control plate together,set them together so that their locating holes meet the hole on the main deck assembly.

<Connect gear 2> (Note 2)
Set the connect gear 2 so that its locating hole meets the hole on the main deck assembly.

Note 1:
Since the connect gear 2 is tightly fixed to the main deck by caulking, adjust its phase with the connect gear and sub cam gear.

Note 2:
The part that needs phase adjustment by the hole on the main deck assembly must exactly be set as the specified phase. There is a fear that some part is installed in a wrong phase because assembling of the mechanism is automated. If so, set every part in the correct phase whenever the mechanism is reassembled.

Fig. 2-5-1

2.6 MECHANISM ADJUSTMENTS

2.6.1 Assembling slide deck assembly and main deck assembly

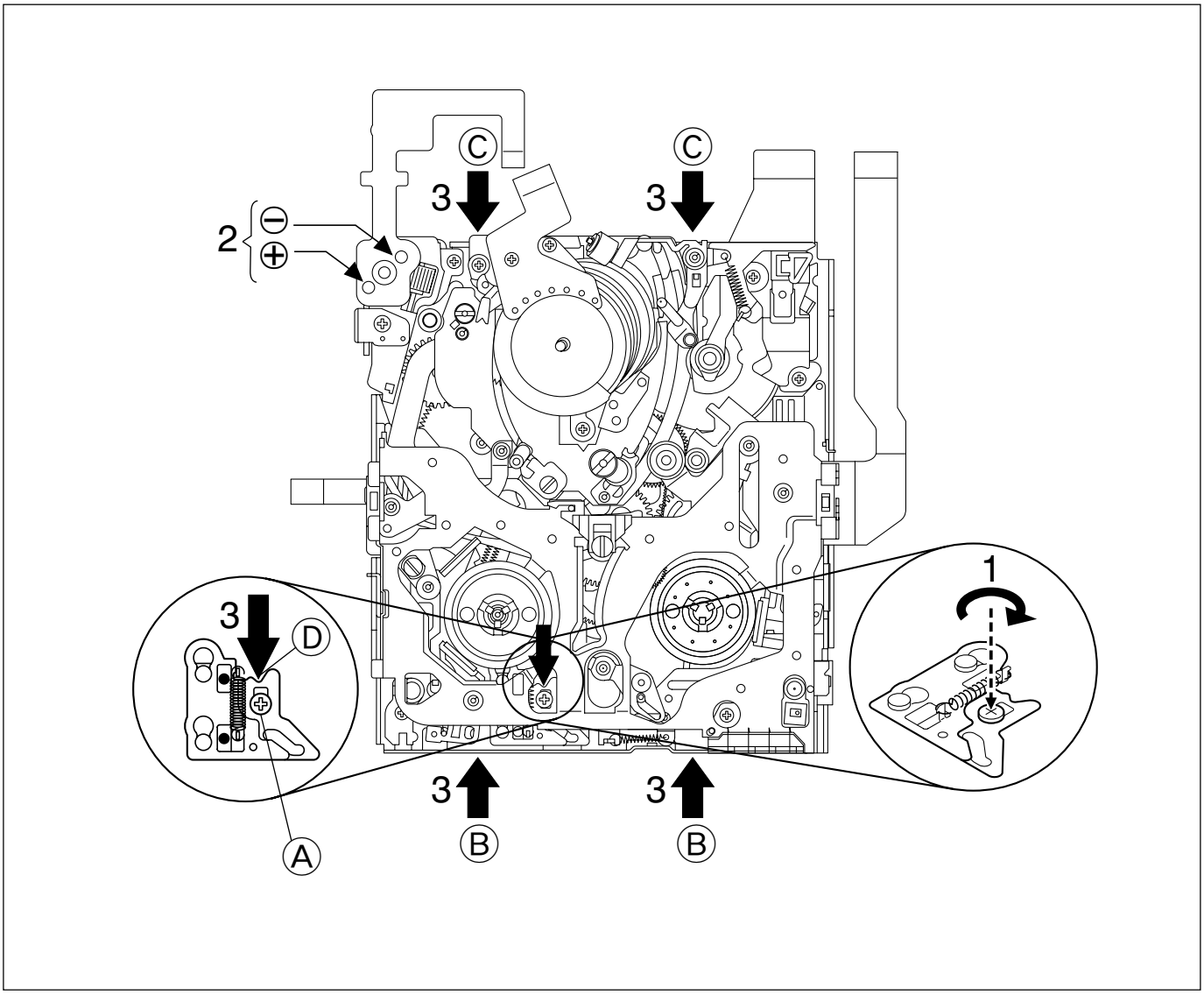


Fig. 2-6-1

Assembling procedure

1. Loosen the screw Ⓐ.
2. Set the mechanism in the PLAY mode.
   (Refer to “2.3.2 Explanation of mechanism mode”.)
3. Press the end face Ⓑ of the slide deck assembly (reel disk side) and the end face Ⓒ of the main deck assembly (drum assembly side) with uniform force so that the two assemblies are tightly pressed to each other. Furthermore, press the part Ⓓ and tighten the screw Ⓐ.

Note : *Tightening torque for screw Ⓐ: 0.069 N·m (0.7 kgf·cm)*

2.6.2 Locating tension pole

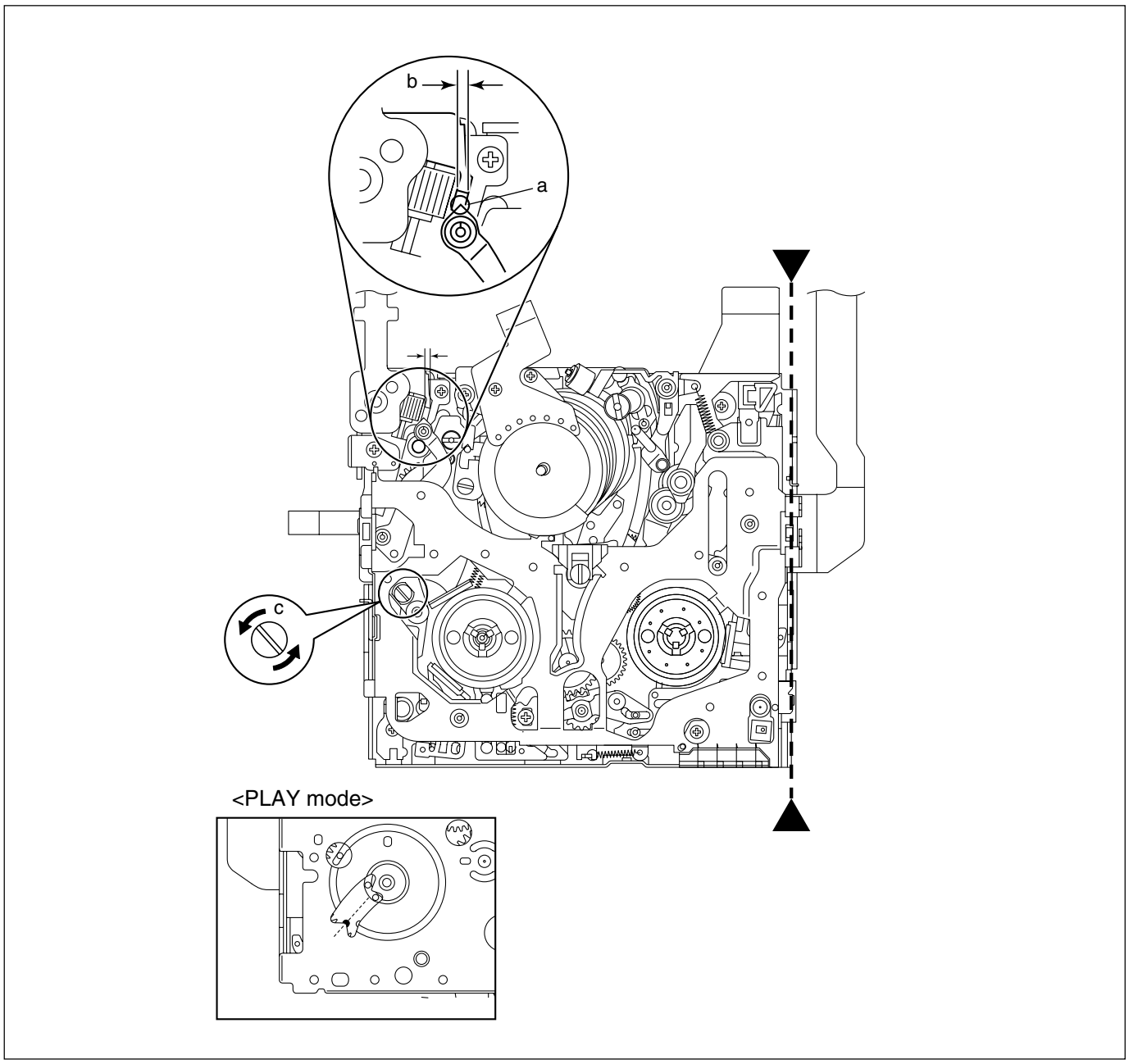


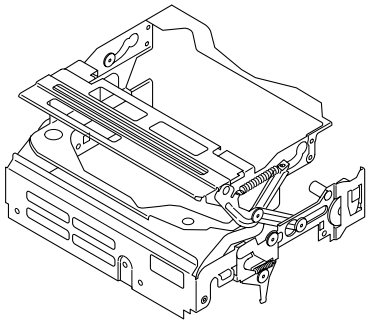
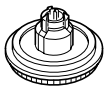
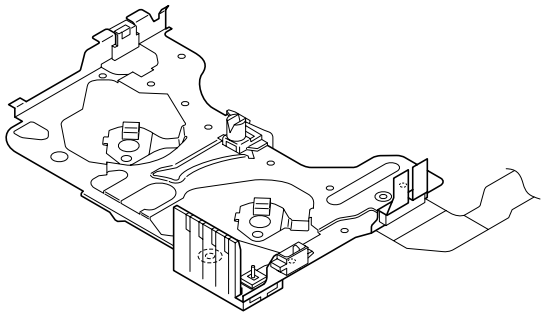
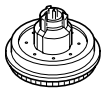
Fig. 2-6-2

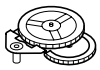
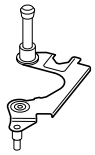
Locating procedure

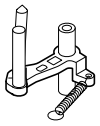
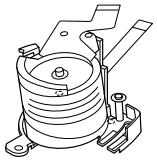
1. Enter the mechanism assembly into the PLAY mode. (Refer to “2.3.2 Explanation of mechanism mode”.)
2. When the “ ▶-----◀ ” part is positioned down, make sure that the part “a” of the tension arm assembly is located within the range of “b”.
3. If the part “a” is out of the range, turn the pin “c” to adjust the position.

2.7 SERVICE NOTE

Use the following chart to manage mechanism parts that are removed for disassembling the mechanism.

<table>
<tr><td>1</td><td colspan="5">(A) Cassette housing assembly
 
S1×3</td></tr>
<tr><td rowspan="2">2</td><td colspan="2">(2a) Reel disk (SUP) assembly
 
W2×1</td><td colspan="3" rowspan="2">(2c) Reel cover assembly
 
S2a×2 S2b×1 W2×1</td></tr>
<tr><td colspan="2">(2b) Reel disk (TU) assembly
 
W2×1</td></tr>
<tr><td>3</td><td>(3a) Tension arm assembly

W3a×1</td><td>(3b) Release guide assembly
 </td><td>(3c) Idler arm assembly
 
W3b×1</td><td>(3d) Guide arm assembly
  </td><td>(3e) Pinch roller arm assembly

W3a×1</td></tr>
<tr><td>4</td><td>(4a) Cleaner arm assembly
 </td><td colspan="2">(4b) Slant pole arm assembly
 
W4×1 P4a×1 P4b×1</td><td colspan="2">(4c) Drum assembly
 
S4×3</td></tr>
<tr><td>5</td><td>(5a) Guide roller (S) assembly

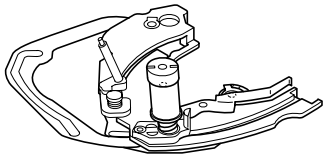
P5×1</td><td colspan="3">(5b) Rail assembly
 
W5a×3 W5b×1</td></tr>
</table>

Table 2-7-1a

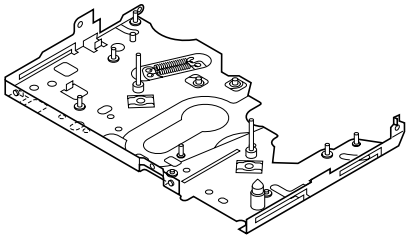
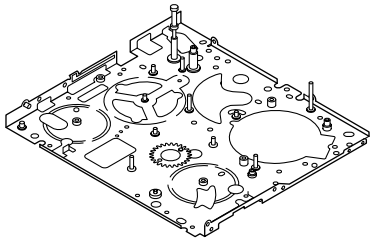
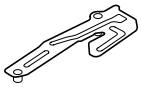
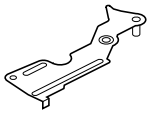
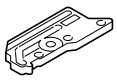
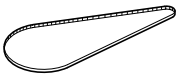
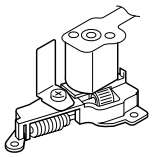
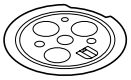
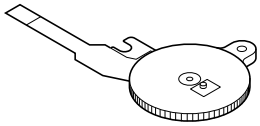
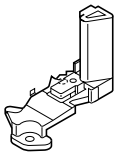
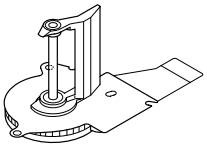
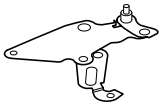
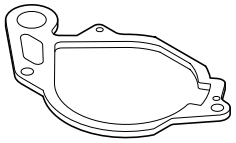
6	(B) Slide deck assembly  W6×1	7	(7a) Loading brake assembly W7×1 P7a×1	(7b) Guide pin (S) S7a×1	(7c) Pad arm assembly W7×1 P7b×1
			(7e) Collar	(7f) Collar	(7g) Sub brake assembly W7×1 P7c×1
					(7d) Slide guide plate assembly S7b×1
					(7h) Control plate assembly W7×2 P7d×1
8	(C) Main deck assembly 	(8a) Tension lever assembly 	(8b) Slide lever assembly	(8c) Brake control lever assembly 	
9	(9a) Loading guide  S9×1	(9b) Timing belt 	(9c) Center gear assembly	(9d) Motor bracket assembly  S9×2	(9e) Worm wheel W9×1	(9f) Gear holder S9×1
10	(10a) Main cam gear S10×1	(10b) Brake control plate 	(10c) Rotary encoder  S10×1 W10a×1	(10d) Connect gear W10a×1	(10e) Reel drive pulley assembly W10b×1	
11	(11a) Catcher (T) assembly  S11×2	(11b) Capstan motor  S11×2	(11c) Charge arm assembly  W11×1	(11d) Sub cam gear S11×1	(11e) PWB holder  S11×2	

Table 2-7-1b

2.8 COMPATIBILITY ADJUSTMENT

2.8.1 Jig connector cable connection

Remove one screw (1) first and the cover (JIG) next.

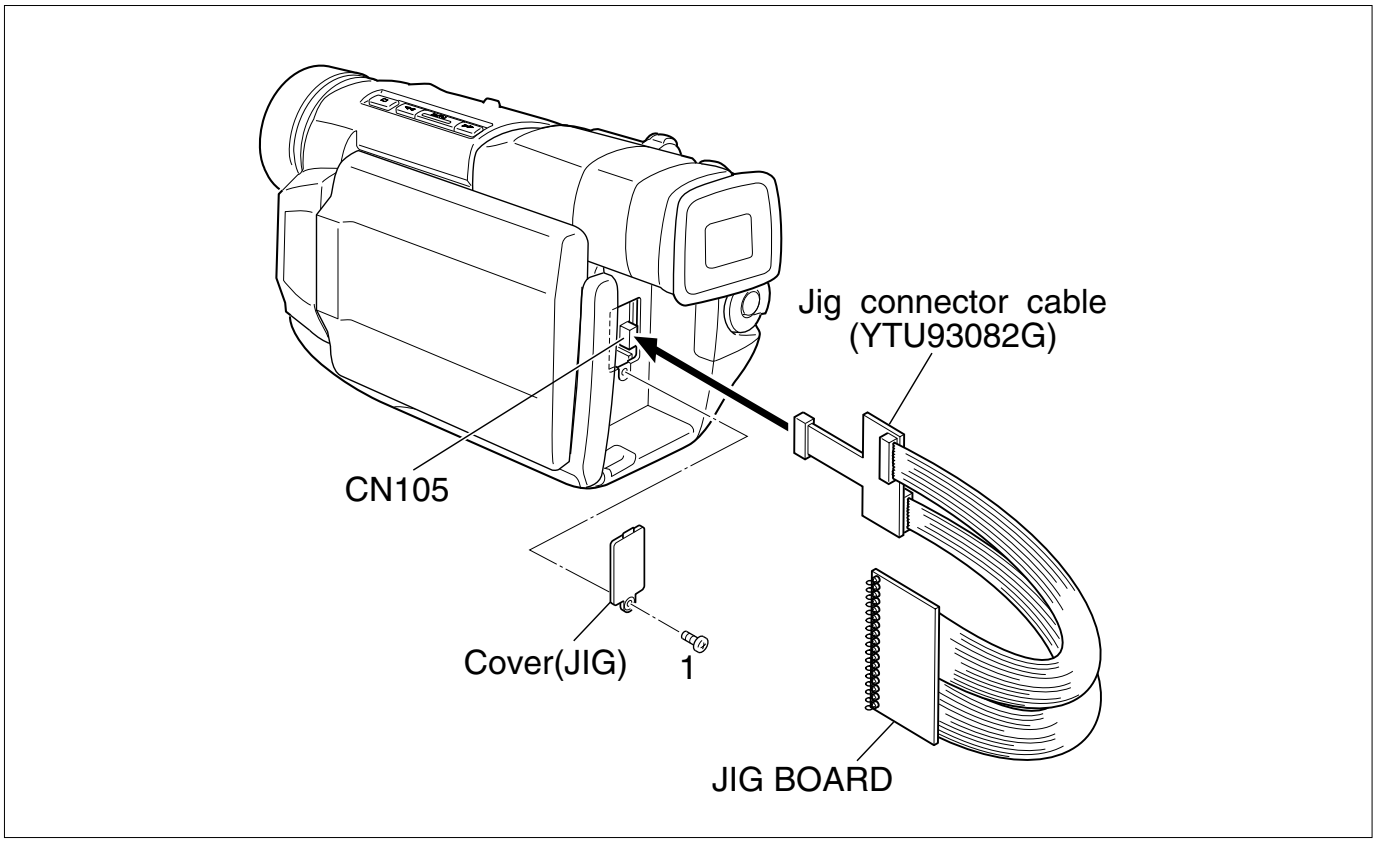


Fig. 2-8-1 Jig connector cable connection

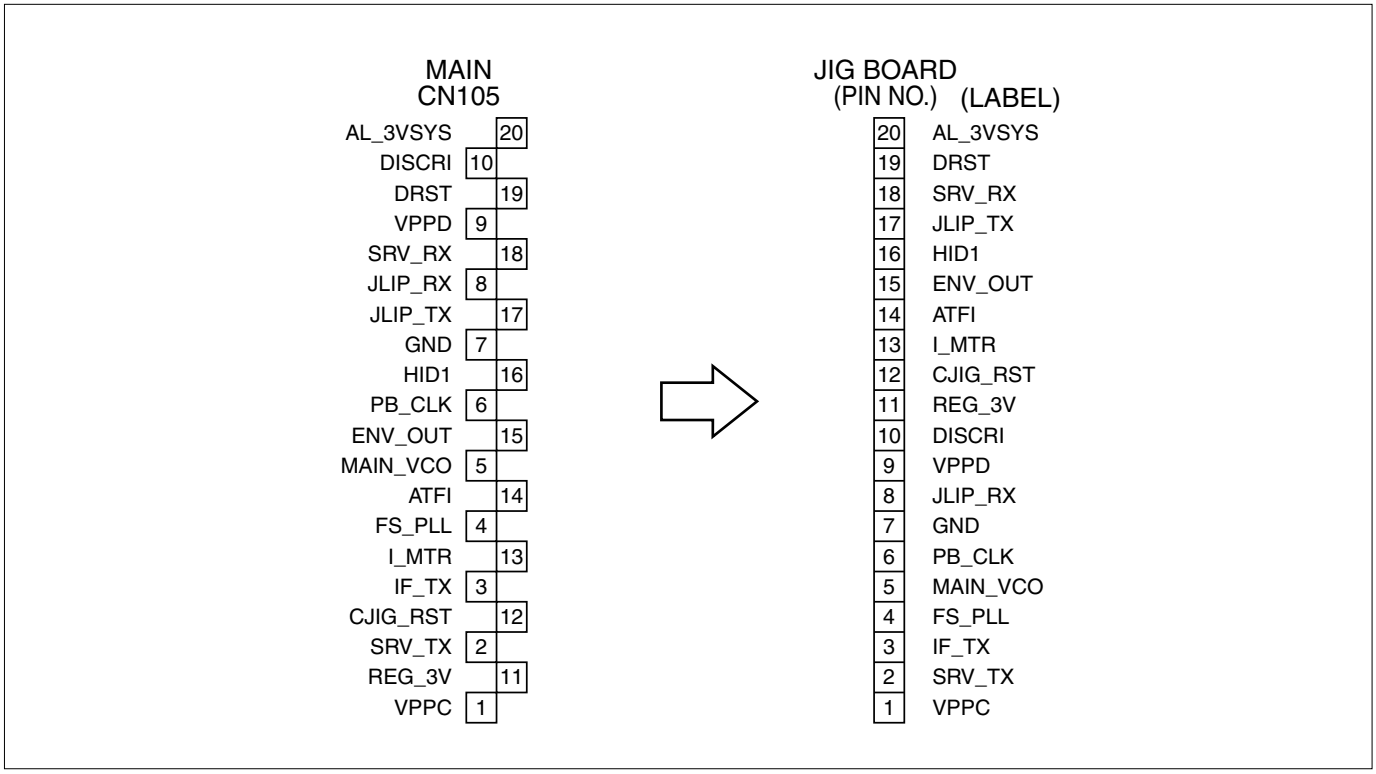


Fig. 2-8-2 Jig connector cable schematic diagram

2.8.2 Tape pattern check

(1) Play back the compatibility adjustment tape.

(2) While triggering the MAIN CN105-16PIN (HID1), observe the waveform of CN105-15PIN (ENV_OUT).

(3) Confirm that the waveform is free from remarkable level-down, and entirely parallel and straight.
Moreover, perform the following adjustment as required.

(4) In case any level-down is observed on the left hand side, straighten the level by turning the guide roller of the pole base assembly (supply).
In case any level-down is observed on the right hand side, however, straighten the level by turning the guide roller of the pole base assembly (Take-up).

(5) After adjustment, try the unloading motion once, and confirm that the waveform is flat (straight) when the tape has been played back again.
Moreover, perform readjustment as required.

(6) When the recording has been played back again, play back the self-recording to confirm that the waveform is flat.

Note:
When an adjustment is performed with the lower case cover attached, first slide the plate open and then perform the compatibility adjustment.
Be sure not to damage the cover plate when sliding it open to make an adjustment because it must be re-positioned after completing the adjustment.

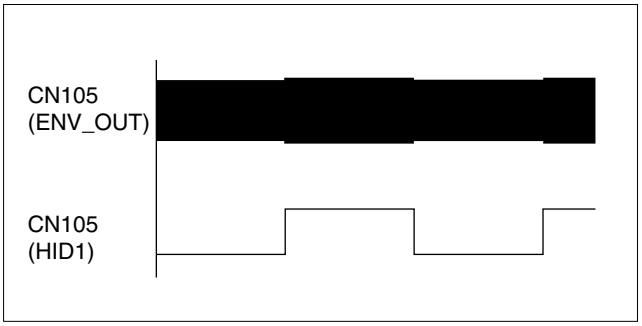


Fig. 2-8-3

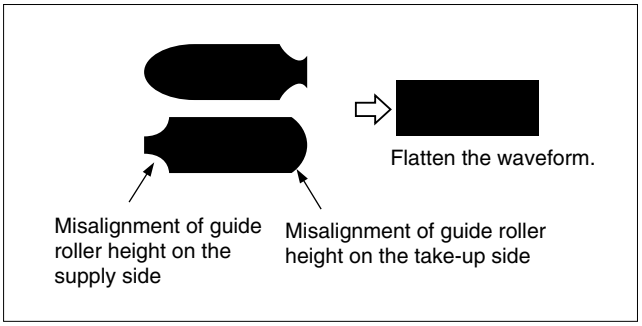

Flatten the waveform.
Misalignment of guide roller height on the supply side
Misalignment of guide roller height on the take-up side

Fig. 2-8-4

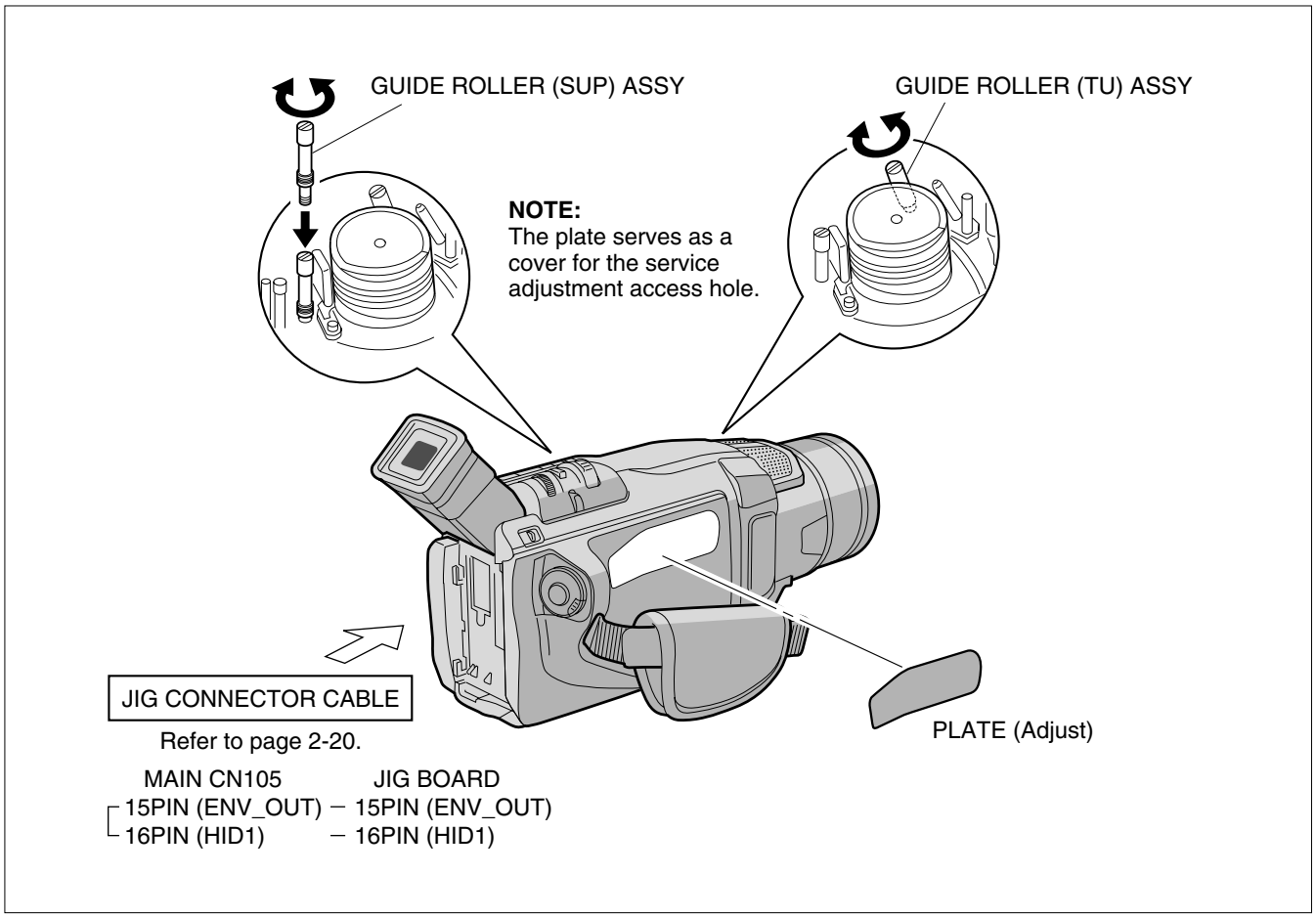

GUIDE ROLLER (SUP) ASSY
GUIDE ROLLER (TU) ASSY
NOTE:
The plate serves as a cover for the service adjustment access hole.
JIG CONNECTOR CABLE
Refer to page 2-20.
PLATE (Adjust)
MAIN CN105 JIG BOARD
15PIN (ENV_OUT) – 15PIN (ENV_OUT)
16PIN (HID1) – 16PIN (HID1)

Fig. 2-8-5

SECTION 3
ELECTRICAL ADJUSTMENT

3.1 PRECAUTION

1. Precaution

Both the camera and deck sections of this model needs a personal computer for adjustment except simple adjustment with potentiometers. If some of the following parts is replaced for repair or other reason, the repaired set must be adjusted with a personal computer.

- OP block
- E^2PROM (IC1003 of MAIN board)

In the event of malfunction with electrical circuits, trouble-shooting with the aid of proper test instruments most be done first, and then commence necessary repair, replacement and adjustment, etc.

1. In case of wiring to chip test points for measurement, use IC clips, etc. to avoid any stress.
2. Since connectors are fragile, carefully handle them in disconnecting and connecting.
3. Shortcircuit between operation and DECK chassis.

2. Required test equipment

1. Color TV monitor.
2. AC adapter
3. Oscilloscope (dual-trace type, observable 100 MHz or higher frequency)

Note : *It is recommended to use one observable 300 MHz or higher frequency.*

4. Digital voltmeter
5. Frequency counter (with threshold level adjuster)
6. Personal computer

3. Tools required for adjustments

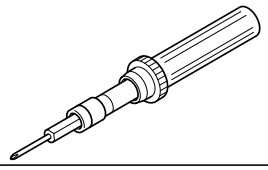
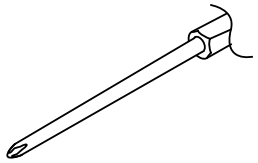
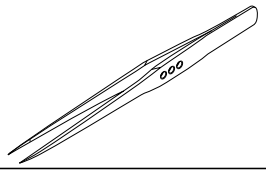
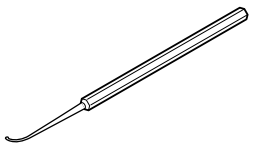
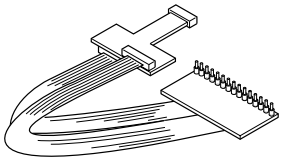
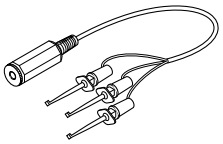
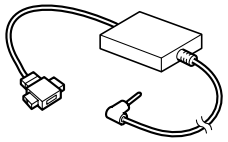
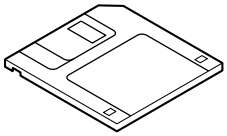
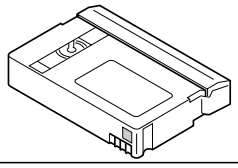
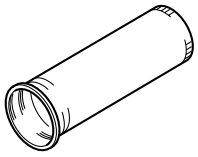
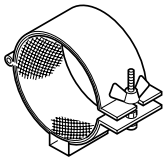
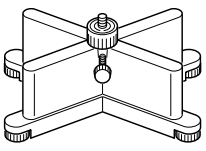
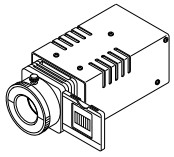
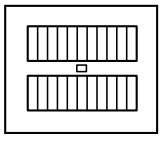
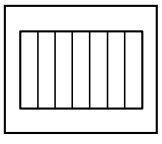
1 Torque driver YTU94088	2 Bit YTU94088-003
	
3 Tweezers P-895	4 Chip IC replacement jig PTS40844-2
	
5 Jig connector cable YTU93082G	6 Communication cable YTU93107A
	
7 PC cable QAM0099-002	8 Service support system YTU94057-60
	
9 Alignment tape MC-2	10 INF adjustment lens YTU92001B
	
11 INF adjustment lens holder YTU94087	12 Camera stand YTU93079
	
13 Light box assembly YTU93096A	14 Gray scale chart YTU94133A
	
15 Color bar chart YTU94133C	
	

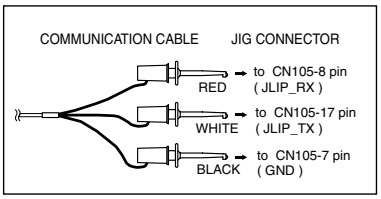
Table 3-1-1

1. **Torque driver**
   Be sure to use to fastening the mechanism and exterior parts because those parts must strictly be controlled for tightening torque.
2. **Bit**
   This bit is slightly longer than those set in conventional torque drivers.
3. **Tweezers**
   To be used for removing and installing parts and wires.
4. **Chip IC replacement jig**
   To be used for adjustment of the camera system.
5. **Jig connector cable**
   Connected to CN105 of the main board and used for electrical adjustment, etc.
6. **Communication cable**
   Connect the Communication cable between the PC cable and Jig connector cable when performing a PC adjustment.
7. **PC cable**
   To be used to connect the VideoMovie and a personal computer with each other when a personal computer is used for adjustment.
8. **Service support system**
   To be used for adjustment with a personal computer.
9. **Alignment tape**
   To be used for check and adjustment of interchangeability of the mechanism.
10. **INF adjustment lens**
    To be used for adjustment of the camera system.
11. **INF adjustment lens holder**
    To be used together with the camera stand for operating the VideoMovie in the stripped-down condition such as the status without the exterior parts or for using commodities that are not yet conformable to the interchangeable ring.
12. **Camera stand**
    To be used together with the INF adjustment lens holder.
13. **Light box assembly**
    To be used for adjustment of the camera system.
14. **Gray scale chart (for Light box assembly)**
    To be used for adjustment of the camera system.
15. **Color bar chart (for Light box assembly)**
    To be used for adjustment of the camera system.

3.2 SETUP

1. Setup for electrical adjustment with personal computer.

   NOTE: *Remove one screw (1) first and the cover (JIG) next.*



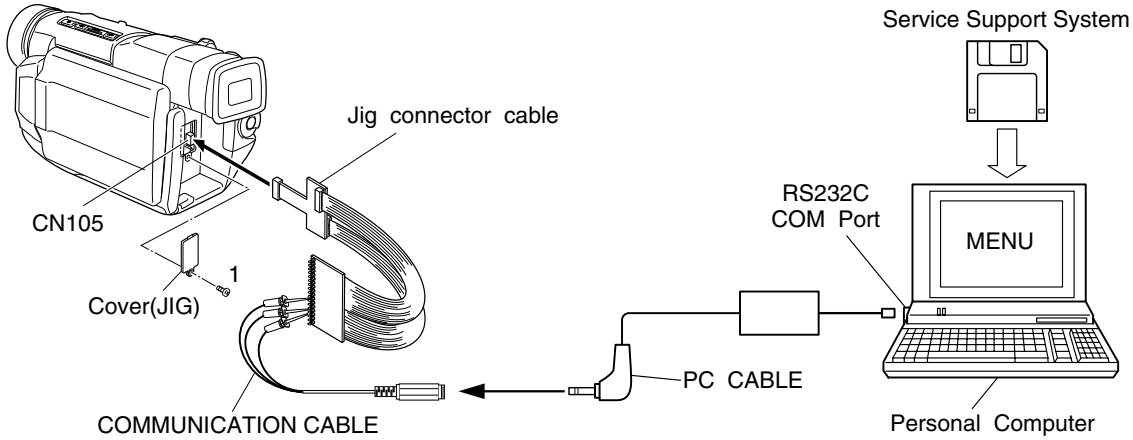


Fig. 3-2-1 Connection for Service support system

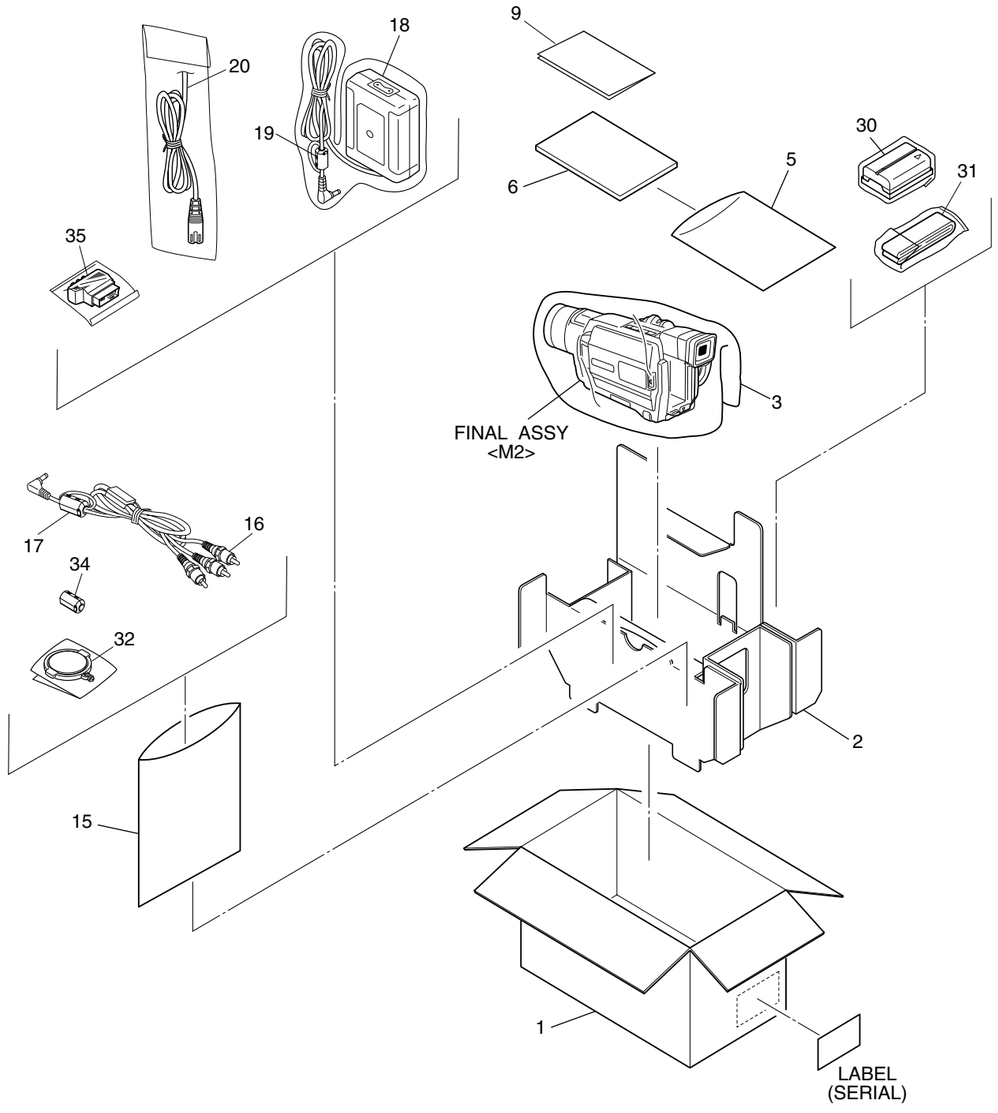
SECTION 5
PARTS LIST

SAFETY PRECAUTION

Parts identified by the ⚠ symbol are critical for safety. Replace only with specified part numbers.

5.1 PACKING AND ACCESSORY ASSEMBLY <M1>

The instruction manual to be provided with this product will differ according to the destination.



# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION

****

PACKING AND ACCESSORY ASSEMBLY <M1>

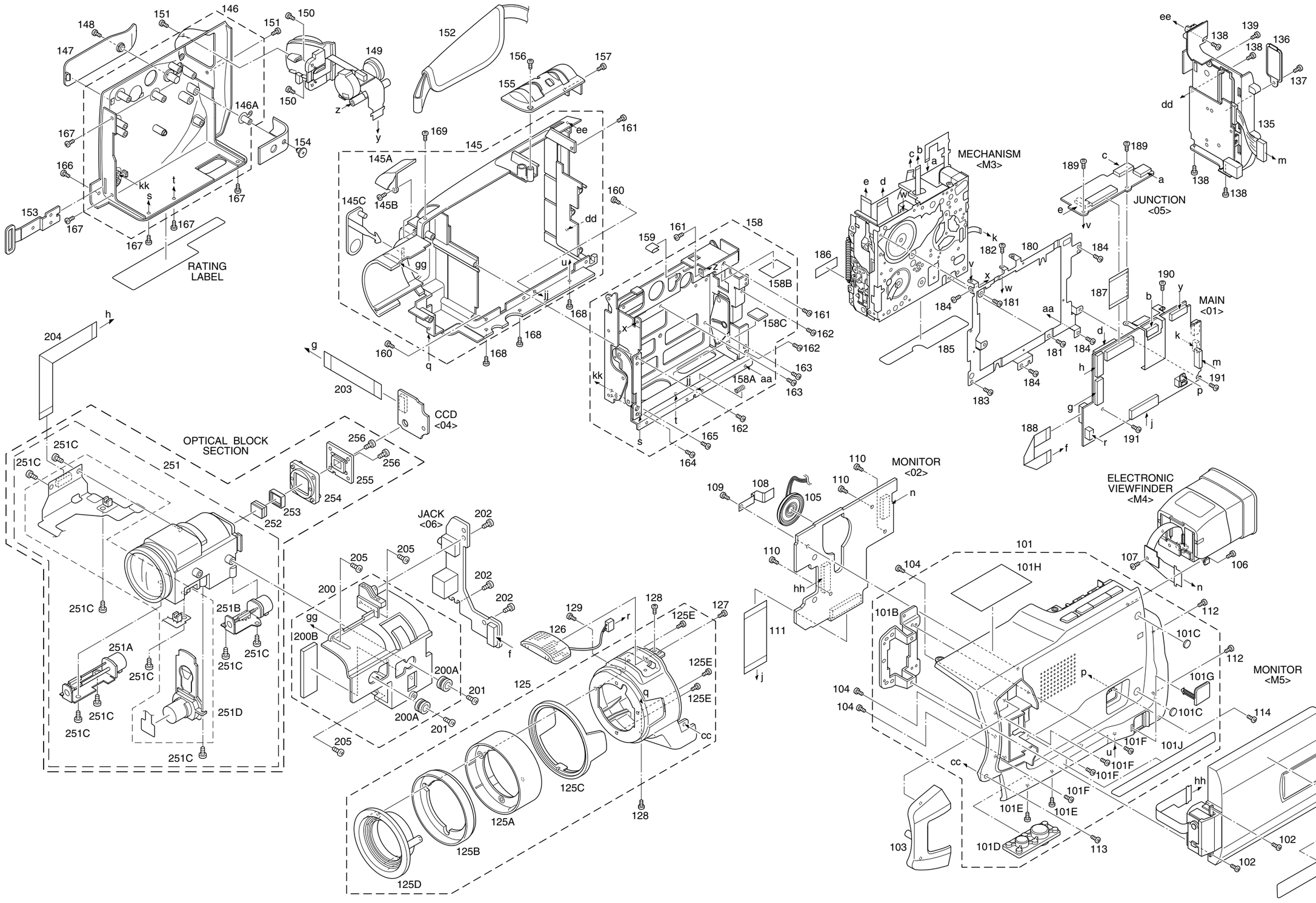
	1	LY32746-001A	PACKING CASE
	2	LY32747-001A	CUSHION
	3	LY30023-015A	POLY BAG
	5	QPA02003506	POLY BAG
⚠	6	LYT1023-002A	INST.BOOK(GE),A,B
⚠		LYT1023-003A	INST.BOOK(FR),A
⚠		LYT1023-004A	INST.BOOK(DU),A
⚠		LYT1023-005A	INST.BOOK(SP),A
⚠		LYT1023-006A	INST.BOOK(IT),A
⚠		LYT1023-007A	INST.BOOK(DA),B
⚠		LYT1023-008A	INST.BOOK(FI),B
⚠		LYT1023-009A	INST.BOOK(SW),B
⚠		LYT1023-010A	INST.BOOK(NO),B
⚠		LYT1023-011A	INST.BOOK(RU),C
⚠		LYT1023-012A	INST.BOOK(CZ),C
⚠		LYT1023-013A	INST.BOOK(PO),C
⚠		LYT1023-014A	INST.BOOK(HU),C
	9	BT-54013-2	WARRANTY CARD
	15	QPA01703005	POLY BAG
	16	QAM0212-001	CABLE ASSY,AUDIO/VIDEO CABLE
	17	QQR0918-002	CORE FILTER
⚠	18	LY20847-001C	AC ADAPTER,AP-V12EG
	19	QQR0917-002	CORE FILTER
⚠	20	QMPL120-190-JR	POWER CORD
⚠	30	LY32566-001A	BATTERY PACK,BN-V408U
	31	LY20186-001A	SHOULDER STRAP
	32	LY43606-001A	LENS CAP ASSY
	34	QQR0491-002	CORE FILTER
	35	QAM0302-001	ADAPTOR PLUG

MODEL	MARK
GR-DVL145EG-X	A
GR-DVL145EG-Y	B
GR-DVL145EG-Z	C

- **INSTRUCTIONS**

GE ..... GERMANY
FR ..... FRENCH
DU ..... DUTCH
SP ..... SPANISH
IT ..... ITALIAN
DA ..... DANISH
FI ..... FINNISH
SW ..... SWEDISH
NO ..... NORWEGIAN
RU ..... RUSSIAN
CZ ..... CZECH
PO ..... POLISH
HU ..... HUNGARIAN

5.2 FINAL ASSEMBLY <M2>



# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION
**********		

FINAL ASSEMBLY <M2>

101	LY20867-002A	UPPER CASE ASSY,A
	LY20867-002B	UPPER CASE ASSY,B,C
101B	LY32737-001B	BRACKET(MONI)
101C	LY40664-001A	SPACER,X2
101D	LY31019-001A	BASE
101E	LY30018-084A	SPECIAL SCREW,X2
101F	LY30018-0A8A	SPECIAL SCREW,X4
101G	LY42866-001A	CAP(DC JACK)
101H	LY43807-001A	STICKER(TOP)
101J	LY43809-001A	STICKER(UPPER)
102	LY30018-0D6A	SPECIAL SCREW,X2
103	LY32738-001A	COVER(HINGE)
104	LY30018-092A	SPECIAL SCREW,X3
105	QAS0112-001	SPEAKER
106	LY30018-063A	SPECIAL SCREW
107	LY30018-064A	SPECIAL SCREW
108	LY42167-001A	PLATE(SPK)
109	LY30018-047A	SPECIAL SCREW
110	LY30018-023A	SPECIAL SCREW,X3
111	QUQ105-4007AA	FFC WIRE,MONI.CN761-MAIN CN101
112	LY30018-059A	SPECIAL SCREW,X2
113	LY30018-0G6A	SPECIAL SCREW
114	LY30018-006B	SPECIAL SCREW
116	LY43808-002A	STICKER(MONI.)
⚠ 125	LY20868-001A	FRONT COVER ASSY
125A	LY32739-001A	HOOD(1)
125B	LY32740-001A	HOOD(2)
125C	LY32741-001A	RING
125D	LY32742-001A	HOOD(SCREW)
125E	LY30018-052A	SPECIAL SCREW,X3
126	LY20869-001A	MICROPHONE
127	LY30018-084A	SPECIAL SCREW
128	LY30018-084A	SPECIAL SCREW,X2
129	LY30018-059A	SPECIAL SCREW
135	LY20725-001A	REAR UNIT
136	LY41691-001A	COVER(JIG)
137	LY30018-037A	SPECIAL SCREW
138	LY30018-084A	SPECIAL SCREW,X4
139	LY30018-065A	SPECIAL SCREW
145	LY20866-001A	LOWER CASE ASSY
145A	LY32735-001A	WINDOW(IR)
145B	LY30018-063A	SPECIAL SCREW
145C	LY32736-001A	COVER(JACK)
146	LY20704-001B	CASSETTE COVER ASSY
146A	LY40592-001A	CAP(GRIP BELT)
147	LY32092-013A	COVER(AJUST)
148	LY30018-037A	SPECIAL SCREW
149	LY20693-001B	ZOOM UNIT
150	LY30018-096A	SPECIAL SCREW,X2
151	LY30018-084A	SPECIAL SCREW,X2
152	LY20575-004B	GRIP BELT
153	LY42891-001A	HOOK(GRIP)
154	LY30018-0D1A	SPECIAL SCREW
155	LY32093-001B	COVER(ZOOM)ASSY
156	LY30018-092A	SPECIAL SCREW
157	LY30018-065A	SPECIAL SCREW
158	LY20697-001D	ARM ASSY
158A	LY30001-023A	TENSION SPRING
158B	LY30029-0C7A	SPACER(A)
158C	LY30029-0E9A	SPACER(A)
159	LY30030-013A	SPACER(A)
160	LY30018-038A	SPECIAL SCREW,X2
161	LY30018-084A	SPECIAL SCREW,X3
162	LY30018-087A	SPECIAL SCREW,X3
163	LY30018-087A	SPECIAL SCREW,X2
164	LY30018-087A	SPECIAL SCREW
165	LY30018-087A	SPECIAL SCREW
166	LY30018-038A	SPECIAL SCREW
167	LY30018-038A	SPECIAL SCREW,X5
168	LY30018-084A	SPECIAL SCREW,X3
169	LY30018-092A	SPECIAL SCREW
180	LY20696-001A	BRACKET(MECHA)
181	LY30019-026A	SPECIAL SCREW,X2
182	YQ43893-4	MINI SCREW
183	LY30018-084A	SPECIAL SCREW
184	LY30018-066A	SPECIAL SCREW,X4
185	LY40698-002A	LABEL(HOUSING)
186	LY40699-002A	LABEL(PUSH)
187	WJT0044-001A	E-CARD WIRE,MAIN CN113-JUNK.CN571
188	WJT0077-001A	E-CARD WIRE,MAIN CN103-JACK CN502
189	QYSPSPT1730Z	SCREW,X2
190	YQ43893-4	MINI SCREW
191	LY30019-033A	SPECIAL SCREW,X2
200	LY32751-001A	FRAME(OP)ASSY
200A	LY41082-001A	CUSHION(OP),X2
200B	LY30029-0A4A	SPACER(A)
201	LY30018-050A	SPECIAL SCREW,X2
202	LY30018-084A	SPECIAL SCREW,X3
203	WJT0075-001A	E-CARD WIRE,CCD CN5001-MAIN CN107
204	WJT0076-001A	E-CARD WIRE,OP-MAIN CN108
205	LY30018-084A	SPECIAL SCREW,X3

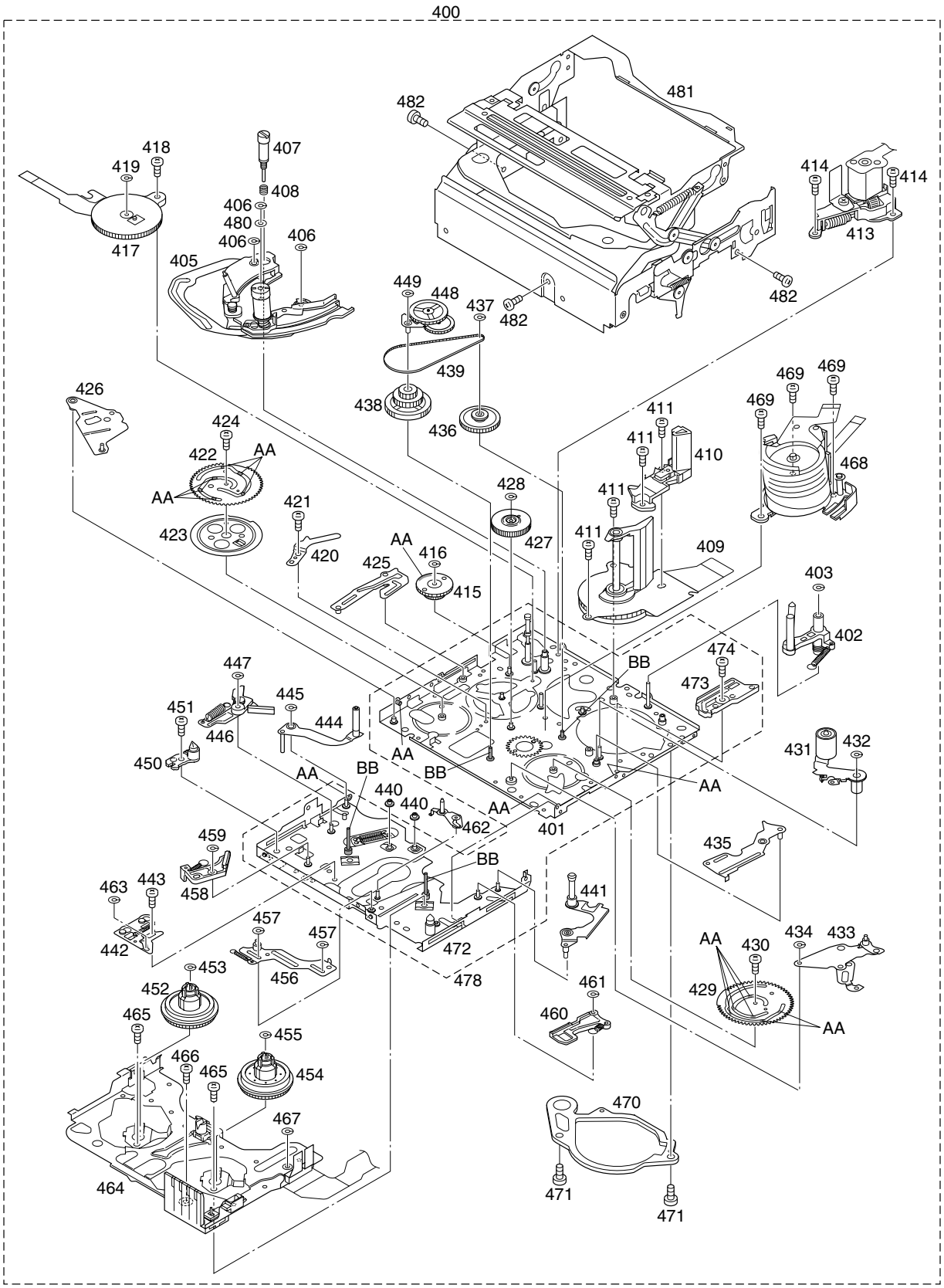
– OPTICAL BLOCK SECTION –

251	LY30948-004A	OP BLOCK ASSY
251A	PTY30948-301	ZOOM MOTOR
251B	PTY30948-002	FOCUS MOTOR
251C	PTY30151-016	TAPPING SCREW,X9
251D	PTY30948-006	IRIS MOTOR
252	LY42936-001A	OPTICAL LPF
253	LY31370-001B	SPACER RUBBER
254	LY20497-001A	CCD SPACER
255	LYH30406-002A	CCD BASE ASSY
256	QYSPSGU2080Z	SCREW,X2

5.3 MECHANISM ASSEMBLY <M3>

BEWARE OF BOGUS PARTS

Parts that do not meet specifications may cause trouble in regard to safety and performance. We recommend that genuine JVC parts be used.



Classification	Part No.	Symbol in drawing
Grease	KYODO-SH-JB	AA
Oil	YTU94027	BB

NOTE: The section marked in **AA** and **BB** indicate lubrication and greasing areas.

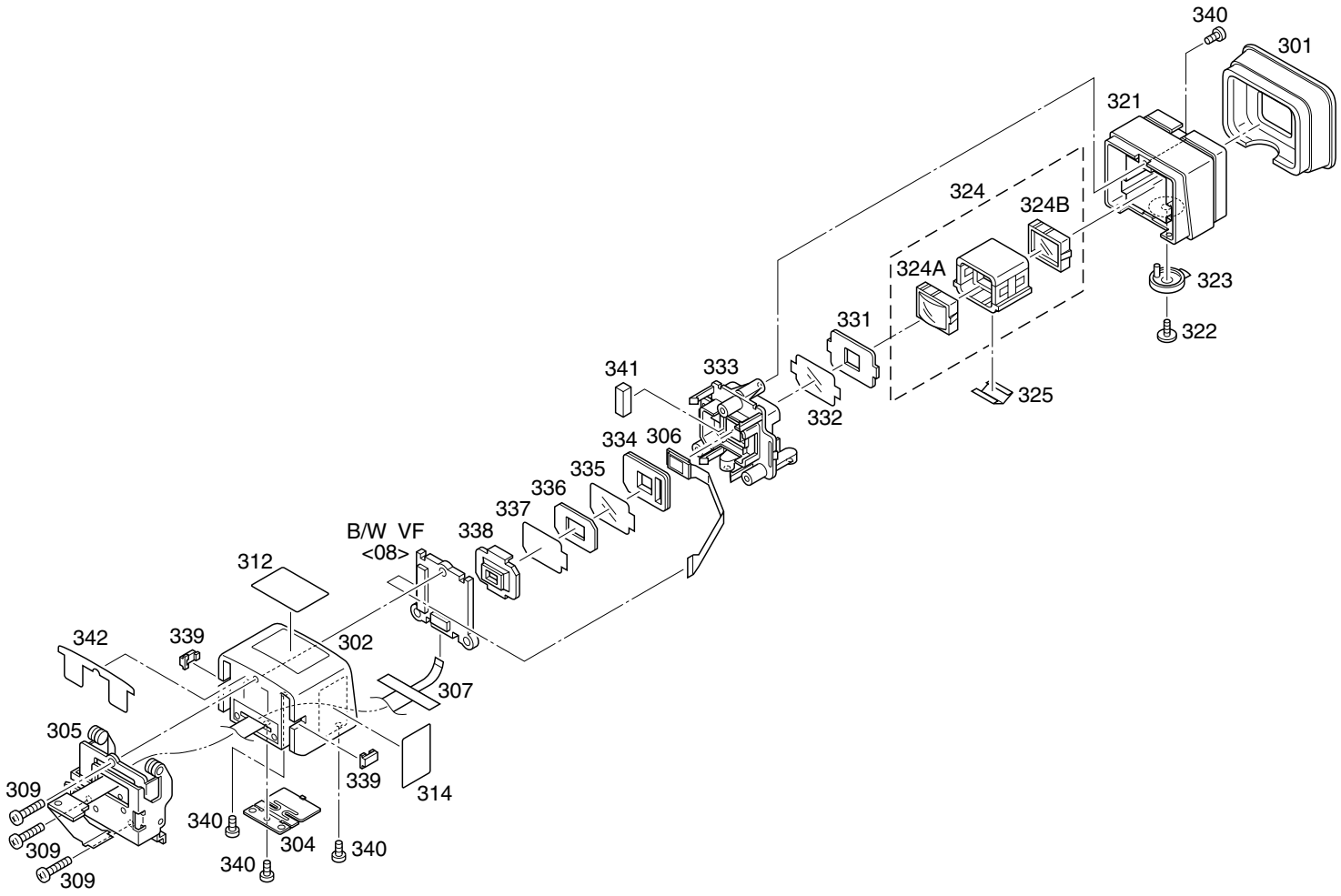
# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION
**********		

MECHANISM ASSEMBLY <M3>

400	YMA0025WCC/E	MECHA(A)ASSY
401	LY10240-001D	MAIN DECK ASSY
402	LY30436-001J	SLANT POLE ARM ASSY
403	YQ44246	SLIT WASHER
405	LY10080-001V	RAIL ASSY
406	YQ44246	SLIT WASHER,X3
407	LY40353-001D	GUIDE ROLLER(S)ASSY
408	LY30002-006C	COMPRESSION SPRING
409	QAR0026-002	CAPSTAN MOTOR
410	LY30504-001C	CATCHER(T)ASSY
411	YQ43893	MINI SCREW,X4
413	LY30448-001E	MOTOR BRACKET ASSY
414	YQ43893	MINI SCREW,X2
415	LY31840-001A	WORM WHEEL
416	YQ44246	SLIT WASHER
417	LY40496-001C	ROTARY ENCODER
418	YQ43893	MINI SCREW
419	YQ44246	SLIT WASHER
420	LY42632-001A	GEAR HOLDER
421	YQ43893-6	MINI SCREW
422	LY31841-001A	MAIN CAM
423	LY31842-001A	BRAKE CONTROL PLATE
424	YQ43893	MINI SCREW
425	LY42633-001A	TAKE UP CONTROL LEVER ASSY
426	LY31844-001A	SLIDE LEVER ASSY
427	LY31846-001A	CONNECT GEAR
428	YQ44246	SLIT WASHER
429	LY31847-001A	SUB CAM
430	YQ43893	MINI SCREW
431	LY31785-001A	PINCHI ROLLER ARM UNIT
432	YQ44246	SLIT WASHER
433	LY31850-001A	CHARGE ARM ASSY
434	YQ44246	SLIT WASHER
435	LY42643-001A	BRAKE CONTROL LEVER ASSY
436	LY42645-001A	REEL DRIVE PULLEY ASSY
437	YQ44246-2	SLIT WASHER
438	LY40391-002B	CENTER GEAR ASSY
439	LY40396-001A	TIMING BELT
440	LY40413-001A	COLLAR,X2
441	LY31854-001A	GUIDE ARM ASSY
442	LY31786-001A	SLIDE GUIDE PLATE UNIT
443	YQ43893-2	MINI SCREW
444	LY42651-001B	TENSION ARM ASSY
445	YQ44246	SLIT WASHER
446	LY30471-001D	PAD ARM ASSY
447	YQ44246	SLIT WASHER
448	LY42745-001A	IDLER ARM ASSY
449	YQ44246-2	SLIT WASHER
450	LY31861-001A	GUIDE PIN(SUPPLY)
451	YQ43893	MINI SCREW
452	LY40441-001B	REEL DISK(SUPPLY)ASSY
453	YQ44246	SLIT WASHER
454	LY40443-002A	REEL DISK(TAKE UP)ASSY
455	YQ44246	SLIT WASHER
456	LY31788-001A	CONTROL PLATE UNIT
457	YQ44246	SLIT WASHER,X2
458	LY40444-001E	LOADING BRAKE ASSY
459	YQ44246	SLIT WASHER
460	LY40452-001C	SUB BRAKE ASSY

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION
461	YQ44246	SLIT WASHER
462	LY31863-001B	RELEASE GUIDE ASSY
463	YQ44246	SLIT WASHER
464	LY20146-001H	REEL COVER ASSY
465	YQ43893-4	MINI SCREW,X2
466	YQ43893	MINI SCREW
467	YQ44246	SLIT WASHER
468	YDV2086S(CX)	DRUM ASSY
469	YQ43893	MINI SCREW,X3
470	LY20630-001A	PWB HOLDER
471	YQ43893	MINI SCREW,X2
472	LY10242-001A	SLIDE DECK ASSY
473	LY31833-001A	LOADING GUIDE
474	YQ43893	MINI SCREW
478	LY31832-001D	DECK ASSY
480	LY41573-001A	WASHER
481	LY31867-001B	CASSETTE HOUSING ASSY
482	YQ43893-4	MINI SCREW,X3

5.4 ELECTRONIC VIEWFINDER ASSEMBLY <M4>



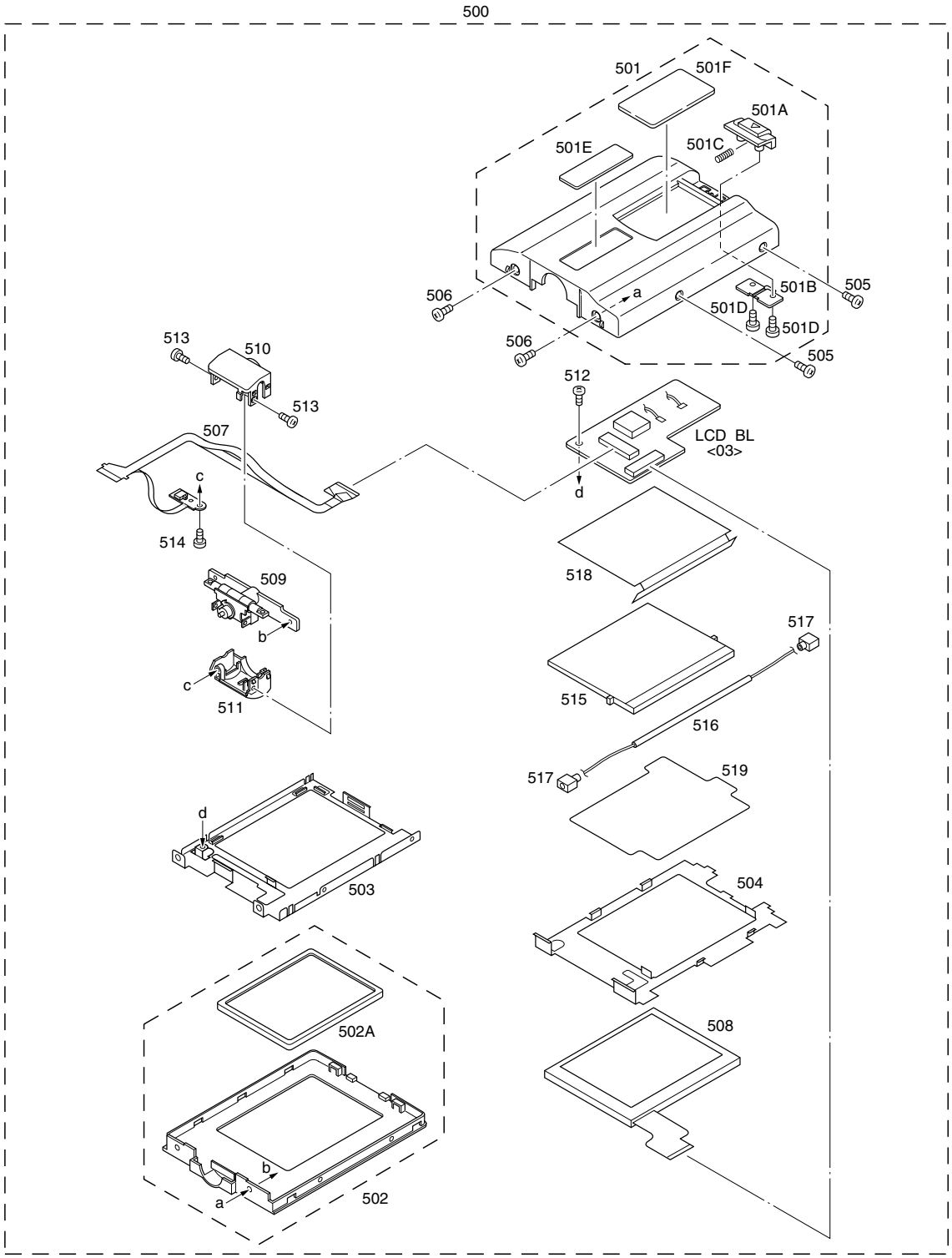
#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

		301	LY32349-001A	EYE CUP
		302	LY20766-001A	CASE A(VF)
		304	LY32351-001A	CAP(VF)
		305	LY20768-001A	VF HINGE ASSY
		306	QLD0193-001	LCD MODULE
		307	QAL0380-002	FPC
		309	LY30018-0F1A	SPECIAL SCREW,X3
		312	LY41701-002A	SHEET(CAUTION)1
		314	LY43041-002A	LABEL(VF)
		321	LY20767-001A	CASE B(VF)
		322	LY30019-037A	SPECIAL SCREW
		323	LY43231-001A	LEVER(VF)
		324	LY32472-001A	LENS ASSY
		324A	LY43356-001A	LENS(A)
		324B	LY43357-001A	LENS(B)
		325	LY43404-001A	SPRING(VF)
		331	LY43236-001A	SHEET
		332	LY43246-001A	SHEET2(POLA)
		333	LY32347-001A	HOLDER LCD(VF)
		334	LY43245-001A	SHEET(CUSION)
		335	LY43234-001A	SHEET1(POLA)
		336	LY43232-001A	SHEET(VF)
		337	LY43235-001A	SHEET(DIFF)
		338	LY43238-001A	HOLDER(LED)
		339	LY43239-001A	GUIDE(VF),X2
		340	LY30018-060A	SPECIAL SCREW,X4
		341	LY30029-0U6A	SPACER(A)
		342	LY43489-001B	PLATE(VF)

5.5 MONITOR ASSEMBLY <M5>



#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION

****

MONITOR ASSEMBLY <M5>

500	LYH20246-045B	MONITOR ASSY
501	LY20702-008A	MONITOR COVER(2.5)ASSY
501A	LY31620-001A	KNOB(LOCK 1)
501B	LY42180-001A	KNOB(LOCK 2)
501C	LY30002-044A	COMPRESSION SPRING
501D	LY30018-084A	SPECIAL SCREW,X2
501E	LY42883-001B	MARK
501F	LY32087-006A	WINDOW
502	LY32924-001A	MONITOR CASE(2.5)ASSY
502A	LY43805-001A	SPACER(MONI.)
503	LY32748-001B	BRACKET(FRM1)
504	LY32749-001B	BRACKET(FRM2)

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION
		505	QYSPSPT1730R	SCREW,X2
		506	LY30018-0F2A	SPECIAL SCREW,X2
		507	LY32574-001A	MONITOR FPC ASSY
		508	QLD0234-001	LCD MODULE
		509	LY32079-001A	HINGE ASSY
		510	LY32088-001A	HINGE COVER(1)
		511	LY32089-001B	HINGE COVER(2)
		512	QYSPSPT1730R	SCREW
		513	LY30018-058A	SPECIAL SCREW,X2
		514	LY30018-023A	SPECIAL SCREW
		515	LY43392-001A	LIGHT SCREEN
		516	QLL0125-001	LAMP
		517	LY43778-001A	HOLDER,X2
		518	LY43396-001A	SHEET(REFLECT)
		519	LY43362-001A	DIFFUSION SHEET(2.5),A
			LY43901-001A	DIFFUSION SHEET(2.5),B,C

5.6 ELECTRICAL PARTS LIST

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION
**********				

MAIN BOARD ASSEMBLY <01>

		PW	YB10368B-01	MAIN BOARD ASSY
		IC1001	UPD703039F1-A32	IC(MICRO C ROM)
			or UPD70F3040F1A32	IC(MICRO C ROM)
		IC1002	RS5C314	IC
		IC1003	X25170S8I-2.5-X	IC
			or 25LC160-I/SN-X	IC
			or AT25160N-10SC-X	IC
			or CAT25C16SI	IC
		IC1004	TC75S56FU	IC
		IC1005	TC7S00FU	IC
			or SN74AHC1G00K	IC
		IC1006	MB90097PFV145	IC(MICRO C ROM)
		IC1007	SN74AHC1G08K	IC
		IC1008	IC-PST3423U-X	IC
		IC1009	TC7W08FU	IC(DIGITAL)
		IC1401	UPD703040YF-M12	IC(MICRO C ROM)
			or UPD70F3040YFM12	IC(MICRO C ROM)
	⚠	IC1601	BD6631KV	IC
		IC1602	TC7W14FU	IC(DIGITAL)
			or SN74AHC2G14T	IC
		IC2001	AK4560AVQ	IC
		IC3001	JCY0152	IC
		IC3005	JCY0136	IC
		IC3501	JCY0132	IC
		IC3502	SN74AHC1G04K	IC
		IC3701	BA7665FS	IC
		IC4201	HD49334F	IC
			or HD49334AF	IC
		IC4202	MM1385HN	IC
		IC4301	JCY0158	IC
		IC4302	MSM548331TA	IC(DIGITAL)
		IC4305	TC7W53FU	IC(DIGITAL)
		IC4601	BA10358F-XE	IC
		IC4602	BA10324AF-XE	IC
		IC4901	UPD16835AGS	IC
		IC5501	JCY0117	IC
		IC6001	S-80842CNNB-W	IC
		IC6101	FA3698F	IC
		Q1001	DTC124EE	DIGI TRANSISTOR
			or UN9212J	DIGI TRANSISTOR
		Q1002	2SC4617/QR/-X	TRANSISTOR
			or 2SD2216J/QR/-X	TRANSISTOR
		Q1004	DTC143XE	DIGI TRANSISTOR
		Q1005	2SJ347	MOS FET
		Q1008	DTA114EE	DIGI TRANSISTOR
			or PDTA114EE	DIGI TRANSISTOR
			or RN2102	DIGI TRANSISTOR
			or UN9111J	DIGI TRANSISTOR
		Q1009	DTC144EE	DIGI TRANSISTOR
			or PDTC144EE	DIGI TRANSISTOR
			or RN1104	DIGI TRANSISTOR
			or UN9213J	DIGI TRANSISTOR
		Q1010	UMX1N	PAIR TRANSISTOR
		Q1011	UMX1N	PAIR TRANSISTOR
		Q1012	UMX1N	PAIR TRANSISTOR
		Q1013	UMX1N	PAIR TRANSISTOR
		Q1401	DTA114EE	DIGI TRANSISTOR
			or PDTA114EE	DIGI TRANSISTOR
			or RN2102	DIGI TRANSISTOR
			or UN9111J	DIGI TRANSISTOR
		Q1402	UMC3N	DIGI TRANSISTOR
		Q1403	UMC3N	DIGI TRANSISTOR
		Q1601	UMC3N	DIGI TRANSISTOR
		Q2001	UMX1N	PAIR TRANSISTOR
		Q2002	2SC4617/RS/-X	TRANSISTOR
		Q2004	2SC4617/RS/-X	TRANSISTOR
		Q3001	2SC4617/RS/-X	TRANSISTOR
		Q3002	2SC4617/RS/-X	TRANSISTOR
		Q3701	UMT2N	PAIR TRANSISTOR
			or XP6401	TRANSISTOR
		Q3702	UMZ1N	PAIR TRANSISTOR
			or XP4601	TRANSISTOR
		Q4304	PUMX1	PAIR TRANSISTOR
			or UMX1N	PAIR TRANSISTOR
		Q4305	PUMX1	PAIR TRANSISTOR
			or UMX1N	PAIR TRANSISTOR
		Q4306	PUMX1	PAIR TRANSISTOR
			or UMX1N	PAIR TRANSISTOR
		Q4307	PUMX1	PAIR TRANSISTOR
			or UMX1N	PAIR TRANSISTOR
		Q4601	2SC4617/QR/-X	TRANSISTOR
			or 2SD2216J/QR/-X	TRANSISTOR
		Q4602	2SC4617/QR/-X	TRANSISTOR
			or 2SD2216J/QR/-X	TRANSISTOR
		Q4901	2SC4617/RS/-X	TRANSISTOR
		Q6001	DTC144EE	DIGI TRANSISTOR
			or PDTC144EE	DIGI TRANSISTOR
			or RN1104	DIGI TRANSISTOR
			or UN9213J	DIGI TRANSISTOR
		Q6002	MCH6613	MOS FET
		Q6004	2SB1188/QR/-W	TRANSISTOR
		Q6201	MCH3308	MOS FET
		Q6202	2SA1577/RS/-X	TRANSISTOR
		Q6203	MCH3308	MOS FET
		Q6204	CPH3314	MOS FET
		Q6205	CPH3101	TRANSISTOR
		Q6206	2SC4617/RS/-X	TRANSISTOR
		Q6208	MCH3308	MOS FET
		Q6210	MCH3308	MOS FET
		Q6211	MCH3308	MOS FET
		Q6212	HN1C01FU/G/-X	PAIR TRANSISTOR
			or PUMX1	PAIR TRANSISTOR
			or UMX1N	PAIR TRANSISTOR
		Q6213	2SA1577/RS/-X	TRANSISTOR
		Q6214	DTC144EE	DIGI TRANSISTOR
			or PDTC144EE	DIGI TRANSISTOR
			or RN1104	DIGI TRANSISTOR
			or UN9213J	DIGI TRANSISTOR
		Q6215	HN1A01FU/G/-X	PAIR TRANSISTOR
			or PUMT1	PAIR TRANSISTOR
			or UMT1N	PAIR TRANSISTOR
		Q6216	2SC4617/RS/-X	TRANSISTOR
		Q6701	CPH3314	MOS FET
		D1001	DA221	DIODE
		D1002	RSD376	DIODE
		D1003	MA8068	ZENER DIODE
		D1602	DAP222	DIODE
		D1603	DAP222	DIODE
		D1604	DAP222	DIODE
		D3001	EC2C01C	VARI CAP DIODE
		D3002	EC2C01C	VARI CAP DIODE
		D3003	EC2C01C	VARI CAP DIODE

#	⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
		D3004	MA2Z720	SB DIODE	
		D5501	1SS355	DIODE	
	⚠	D6002	RB715F	SB DIODE	
		D6201	CRS01	SB DIODE	
		D6202	CRS01	SB DIODE	
		D6203	CRS01	SB DIODE	
		D6204	CRS01	SB DIODE	
		D6205	CRS01	SB DIODE	
		D6206	RB480Y	SB DIODE	
		D6207	UDZS9.1B	ZENER DIODE	
		D6208	RB480Y	SB DIODE	
		D6701	EP10HY03	SB DIODE	
		D6702	EP10HY03	SB DIODE	
		R1001	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1002	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
		R1003	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
		R1004	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1005	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
		R1006	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1007	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W
		R1008	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1009	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
		R1013	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
		R1015	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
		R1017	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
		R1018	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1019	NRSA6AJ-623W	MG RESISTOR	62kΩ,1/16W
		R1020	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
		R1021	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
		R1022	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
		R1023	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1024	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
		R1026	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
		R1027	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1028	NRSA6AJ-185W	MG RESISTOR	1.8MΩ,1/16W
		R1030	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1031	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1032	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1033	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1034	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1036	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1037	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1038	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1039	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1044	NRSA6AJ-123W	MG RESISTOR	12kΩ,1/16W
		R1045	NRSA6AJ-822W	MG RESISTOR	8.2kΩ,1/16W
		R1046	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1048	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1049	NRSA6AJ-393W	MG RESISTOR	39kΩ,1/16W
		R1050	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
		R1051	NRSA6AJ-272W	MG RESISTOR	2.7kΩ,1/16W
		R1052	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W
		R1053	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
		R1054	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
		R1055	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1056	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
		R1058	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
		R1066	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
		R1071	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
		R1072	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1078	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1079	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1080	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1081	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1082	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1083	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1090	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
		R1091	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
		R1092	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
		R1093	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
		R1094	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
		R1095	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
		R1096	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
		R1097	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
		R1401	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W
		R1402	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1403	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1404	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
		R1405	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
		R1406	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
		R1407	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
		R1408	NRSA6AD-753W	MG RESISTOR	75kΩ,1/16W
		R1409	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W
		R1411	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
		R1412	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
		R1413	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
		R1414	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
		R1415	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
		R1416	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
		R1417	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W
		R1421	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1422	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
		R1423	NRSA6AJ-820W	MG RESISTOR	82Ω,1/16W
		R1424	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1601	NRSA6AJ-681W	MG RESISTOR	680Ω,1/16W
		R1602	NRSA6AJ-124W	MG RESISTOR	120kΩ,1/16W
		R1603	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
		R1604	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1605	NRV142F-R22X	CMF RESISTOR	0.22Ω,1/4W
		R1609	NRV142F-R33X	CMF RESISTOR	0.33Ω,1/4W
		R1610	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W
		R1611	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W
		R1612	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
		R1613	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1614	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1615	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R1616	NRSA6AJ-391W	MG RESISTOR	390Ω,1/16W
		R1617	NRSA6AJ-683W	MG RESISTOR	68kΩ,1/16W
		R1618	NRSA6AJ-683W	MG RESISTOR	68kΩ,1/16W
		R1619	NRSA6AJ-393W	MG RESISTOR	39kΩ,1/16W
		R1620	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1621	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1622	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1624	NRVA6AD-123W	CMF RESISTOR	12kΩ,1/16W
		R1625	NRSA6AJ-181W	MG RESISTOR	180Ω,1/16W
		R1626	NRSA6AJ-181W	MG RESISTOR	180Ω,1/16W
		R1628	NRVA6AD-271W	CMF RESISTOR	270Ω,1/16W
		R1629	NRSA6AJ-564W	MG RESISTOR	560kΩ,1/16W
		R1630	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
		R1631	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
		R1635	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
		R1636	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
		R1637	NRSA6AJ-154W	MG RESISTOR	150kΩ,1/16W
		R2006	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W
		R2007	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R2008	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
		R2009	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R2014	NRSA6AJ-820W	MG RESISTOR	82Ω,1/16W
R2015	NRSA6AJ-820W	MG RESISTOR	82Ω,1/16W
R2016	NRSA6AJ-820W	MG RESISTOR	82Ω,1/16W
R2017	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R2018	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R2019	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω,1/16W
R2020	NRSA6AJ-2R7W	MG RESISTOR	2.7Ω,1/16W
R2023	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R2024	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W
R2025	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R2027	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
R2028	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R2101	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
R2102	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
R2103	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2104	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2105	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R2106	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R2107	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
R2108	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
R2109	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2110	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2111	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R2112	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R2113	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2114	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2117	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2118	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2119	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2120	NRSA6AJ-153W	MG RESISTOR	15kΩ,1/16W
R2127	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2128	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R2129	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
R2130	NRSA6AJ-332W	MG RESISTOR	3.3kΩ,1/16W
R2201	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
R2202	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
R3002	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3004	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3005	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W
R3006	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W
R3007	NRSA6AJ-562W	MG RESISTOR	5.6kΩ,1/16W
R3008	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R3009	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3010	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3011	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R3013	NRSA6AJ-242W	MG RESISTOR	2.4kΩ,1/16W
R3014	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W
R3015	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W
R3016	NRVA6AD-560W	CMF RESISTOR	56Ω,1/16W
R3017	NRVA6AD-560W	CMF RESISTOR	56Ω,1/16W
R3018	NRVA6AD-560W	CMF RESISTOR	56Ω,1/16W
R3019	NRVA6AD-560W	CMF RESISTOR	56Ω,1/16W
R3020	NRVA6AD-512W	CMF RESISTOR	5.1kΩ,1/16W
R3025	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R3027	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3029	NRSA6AJ-682W	MG RESISTOR	6.8kΩ,1/16W
R3030	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R3031	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
R3032	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W
R3033	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3034	NRSA6AJ-222W	MG RESISTOR	2.2kΩ,1/16W
R3036	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3037	NRSA6AJ-681W	MG RESISTOR	680Ω,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R3050	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R3051	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R3057	NRSA6AJ-100W	MG RESISTOR	10Ω,1/16W
R3059	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W
R3066	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3067	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3068	NRSA6AJ-271W	MG RESISTOR	270Ω,1/16W
R3069	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R3071	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R3074	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3501	NRSA6AJ-471W	MG RESISTOR	470Ω,1/16W
R3502	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R3503	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R3504	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3505	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3506	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3507	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3508	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
R3511	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W
R3521	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R3522	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R3701	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3702	NRSA6AD-241W	MG RESISTOR	240Ω,1/16W
R3703	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R3706	NRSA6AD-221W	MG RESISTOR	220Ω,1/16W
R3707	NRSA6AD-221W	MG RESISTOR	220Ω,1/16W
R3708	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
R3711	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W
R3712	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W
R3713	NRSA6AD-680W	MG RESISTOR	68Ω,1/16W
R3714	NRSA6AJ-123W	MG RESISTOR	12kΩ,1/16W
R3715	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3717	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3718	NRSA6AJ-561W	MG RESISTOR	560Ω,1/16W
R3719	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R3724	NRSA6AJ-392W	MG RESISTOR	3.9kΩ,1/16W
R4202	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4203	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4205	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
R4206	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4207	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4208	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R4301	NRSA6AJ-101W	MG RESISTOR	100Ω,1/16W
R4304	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4305	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4307	NRSA6AD-333W	MG RESISTOR	33kΩ,1/16W
R4308	NRSA6AD-682W	MG RESISTOR	6.8kΩ,1/16W
R4309	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4311	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
R4312	NRSA6AD-272W	MG RESISTOR	2.7kΩ,1/16W
R4313	NRSA6AD-272W	MG RESISTOR	2.7kΩ,1/16W
R4314	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
R4315	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
R4333	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4336	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4337	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4338	NRSA6AJ-220W	MG RESISTOR	22Ω,1/16W
R4339	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4340	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4341	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4343	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4344	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
R4346	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W

# ⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	R4360	NRSA6AD-102W	MG RESISTOR	1kΩ,1/16W
	R4362	NRSA6AD-223W	MG RESISTOR	22kΩ,1/16W
	R4363	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R4364	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
	R4365	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W
	R4366	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W
	R4367	NRSA6AD-332W	MG RESISTOR	3.3kΩ,1/16W
	R4368	NRSA6AD-223W	MG RESISTOR	22kΩ,1/16W
	R4369	NRSA6AD-332W	MG RESISTOR	3.3kΩ,1/16W
	R4370	NRSA6AD-223W	MG RESISTOR	22kΩ,1/16W
	R4371	NRSA6AD-332W	MG RESISTOR	3.3kΩ,1/16W
	R4372	NRSA6AD-223W	MG RESISTOR	22kΩ,1/16W
	R4375	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R4376	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R4377	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R4378	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R4379	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R4380	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R4381	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R4382	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
	R4383	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
	R4384	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
	R4385	NRSA6AD-101W	MG RESISTOR	100Ω,1/16W
	R4386	NRSA6AD-271W	MG RESISTOR	270Ω,1/16W
	R4387	NRSA6AD-271W	MG RESISTOR	270Ω,1/16W
	R4388	NRSA6AD-271W	MG RESISTOR	270Ω,1/16W
	R4601	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R4602	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R4603	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
	R4604	NRSA6AJ-331W	MG RESISTOR	330Ω,1/16W
	R4605	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W
	R4606	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R4607	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R4608	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
	R4609	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R4610	NRSA6AJ-105W	MG RESISTOR	1MΩ,1/16W
	R4611	NRSA6AJ-243W	MG RESISTOR	24kΩ,1/16W
	R4614	NRSA6AJ-472W	MG RESISTOR	4.7kΩ,1/16W
	R4615	NRSA6AJ-683W	MG RESISTOR	68kΩ,1/16W
	R4616	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R4617	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R4618	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R4619	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R4620	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W
	R4621	NRSA6AJ-334W	MG RESISTOR	330kΩ,1/16W
	R4622	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
	R4623	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
	R4624	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
	R4901	NRSA63J-6R8X	MG RESISTOR	6.8Ω,1/16W
	R4902	NRSA63J-6R8X	MG RESISTOR	6.8Ω,1/16W
	R4903	NRSA63J-6R8X	MG RESISTOR	6.8Ω,1/16W
	R4904	NRSA63J-6R8X	MG RESISTOR	6.8Ω,1/16W
	R4905	NRSA6AJ-271W	MG RESISTOR	270Ω,1/16W
	R4906	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
	R4907	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R4908	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R4909	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R4911	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R4914	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
	R4915	NRSA6AJ-182W	MG RESISTOR	1.8kΩ,1/16W
	R4916	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R4917	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R4918	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W

# ⚠	REF No.	PART No.	PART NAME, DESCRIPTION	
	R5501	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R5503	NRSA6AJ-270W	MG RESISTOR	27Ω,1/16W
	R5504	NRSA6AJ-270W	MG RESISTOR	27Ω,1/16W
	R5505	NRSA6AJ-270W	MG RESISTOR	27Ω,1/16W
	R5506	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R5507	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R5509	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W
	R5510	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W
	R5511	NRSA6AJ-470W	MG RESISTOR	47Ω,1/16W
	R5512	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R5513	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R5514	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R6001	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R6002	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
	R6003	NRSA6AJ-224W	MG RESISTOR	220kΩ,1/16W
	R6004	NRSA6AJ-183W	MG RESISTOR	18kΩ,1/16W
	R6005	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
⚠	R6009	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
	R6010	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R6011	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R6012	NRSA6AD-104W	MG RESISTOR	100kΩ,1/16W
	R6013	NRSA6AD-683W	MG RESISTOR	68kΩ,1/16W
	R6101	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R6102	NRSA6AD-751W	MG RESISTOR	750Ω,1/16W
	R6103	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R6106	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
	R6107	NRSA6AD-562W	MG RESISTOR	5.6kΩ,1/16W
	R6108	NRSA6AJ-223W	MG RESISTOR	22kΩ,1/16W
	R6113	NRSA6AJ-393W	MG RESISTOR	39kΩ,1/16W
	R6114	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
	R6115	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
	R6116	NRSA6AD-153W	MG RESISTOR	15kΩ,1/16W
	R6117	NRSA6AJ-0R0W	MG RESISTOR	0Ω,1/16W
	R6118	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R6124	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R6201	NRSA6AD-223W	MG RESISTOR	22kΩ,1/16W
	R6202	NRSA6AJ-474W	MG RESISTOR	470kΩ,1/16W
	R6203	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R6204	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R6205	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
	R6206	NRSA6AD-183W	MG RESISTOR	18kΩ,1/16W
	R6207	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
	R6208	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
	R6209	NRSA6AD-153W	MG RESISTOR	15kΩ,1/16W
	R6210	NRSA6AD-183W	MG RESISTOR	18kΩ,1/16W
	R6212	NRSA6AD-472W	MG RESISTOR	4.7kΩ,1/16W
	R6213	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
	R6214	NRSA6AJ-152W	MG RESISTOR	1.5kΩ,1/16W
	R6215	NRSA6AJ-473W	MG RESISTOR	47kΩ,1/16W
	R6219	NRSA6AD-243W	MG RESISTOR	24kΩ,1/16W
	R6220	NRSA6AD-302W	MG RESISTOR	3kΩ,1/16W
	R6221	NRSA6AD-104W	MG RESISTOR	100kΩ,1/16W
	R6222	NRSA6AD-103W	MG RESISTOR	10kΩ,1/16W
	R6223	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
	R6224	NRSA6AD-473W	MG RESISTOR	47kΩ,1/16W
	R6225	NRSA6AD-562W	MG RESISTOR	5.6kΩ,1/16W
	R6226	NRSA6AD-223W	MG RESISTOR	22kΩ,1/16W
	R6227	NRSA6AD-473W	MG RESISTOR	47kΩ,1/16W
	R6228	NRSA6AD-473W	MG RESISTOR	47kΩ,1/16W
	R6229	NRSA6AD-332W	MG RESISTOR	3.3kΩ,1/16W
	R6230	NRSA6AJ-272W	MG RESISTOR	2.7kΩ,1/16W
	R6231	NRSA6AD-104W	MG RESISTOR	100kΩ,1/16W
	R6232	NRSA6AD-473W	MG RESISTOR	47kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
R6233	NRSA6AJ-822W	MG RESISTOR	8.2kΩ,1/16W
R6234	NRSA6AJ-273W	MG RESISTOR	27kΩ,1/16W
R6235	NRSA6AD-683W	MG RESISTOR	68kΩ,1/16W
R6236	NRSA6AD-473W	MG RESISTOR	47kΩ,1/16W
R6237	NRSA6AD-753W	MG RESISTOR	75kΩ,1/16W
R6238	NRSA6AD-104W	MG RESISTOR	100kΩ,1/16W
R6239	NRSA6AJ-103W	MG RESISTOR	10kΩ,1/16W
R6240	NRSA6AJ-333W	MG RESISTOR	33kΩ,1/16W
R6241	NRSA6AJ-102W	MG RESISTOR	1kΩ,1/16W
R6242	NRSA6AJ-104W	MG RESISTOR	100kΩ,1/16W
R6243	NRSA6AJ-823W	MG RESISTOR	82kΩ,1/16W
R6701	NRZ0058-R20X	MG RESISTOR	0.2Ω,1/2W
R6702	NRSA6AD-104W	MG RESISTOR	100kΩ,1/16W
R6703	NRSA6AD-123W	MG RESISTOR	12kΩ,1/16W
R6704	NRSA6AD-823W	MG RESISTOR	82kΩ,1/16W
R6705	NRSA6AD-333W	MG RESISTOR	33kΩ,1/16W
RA1008	NRZ0034-104W	NETWORK RESISTOR	100kΩ
RA1009	NRZ0034-104W	NETWORK RESISTOR	100kΩ
RA1010	NRZ0034-474W	NETWORK RESISTOR	470kΩ
RA1011	NRZ0034-474W	NETWORK RESISTOR	470kΩ
RA1401	NRZ0034-473W	NETWORK RESISTOR	47kΩ
RA3001	NRZ0034-560W	NETWORK RESISTOR	56Ω
RA3002	NRZ0034-560W	NETWORK RESISTOR	56Ω
RA3003	NRZ0034-100W	NETWORK RESISTOR	10Ω
RA3004	NRZ0034-103W	NETWORK RESISTOR	10kΩ
RA3005	NRZ0040-0R0X	NETWORK RESISTOR	0Ω
RA4301	NRZ0034-101W	NETWORK RESISTOR	100Ω
RA4302	NRZ0034-101W	NETWORK RESISTOR	100Ω
RA4303	NRZ0034-101W	NETWORK RESISTOR	100Ω
C1003	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C1004	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1006	NDCA1HJ-130W	CAPACITOR	13pF,50V
C1007	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1009	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1010	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1013	NCB31CK-104X	CAPACITOR	0.1μF,16V
C1015	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1016	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1017	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1019	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1023	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1026	NCFA1AZ-104W	CAPACITOR	0.1μF,10V
C1028	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1029	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1030	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1031	NCF31AZ-105X	CAPACITOR	1μF,10V
C1034	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1036	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1037	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1038	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1039	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1401	NDCA1HJ-150W	CAPACITOR	15pF,50V
C1402	NDCA1HJ-150W	CAPACITOR	15pF,50V
C1403	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1404	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1405	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1406	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1407	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1409	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1410	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1411	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1412	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1413	NCBA1CK-223W	CAPACITOR	0.022μF,16V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C1414	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1415	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1416	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1601	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1602	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C1603	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C1605	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C1606	NCBA1HK-152W	CAPACITOR	0.0015μF,50V
C1607	NCBA1AK-473W	CAPACITOR	0.047μF,10V
C1614	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C1618	NCBA1HK-222W	CAPACITOR	0.0022μF,50V
C1619	NCBA1HK-222W	CAPACITOR	0.0022μF,50V
C1620	NCBA1HK-222W	CAPACITOR	0.0022μF,50V
C1621	NCB30JK-105X	CAPACITOR	1μF,6.3V
C1622	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C1623	NCBA1AK-473W	CAPACITOR	0.047μF,10V
C1624	NCBA1CK-103W	CAPACITOR	0.01μF,16V
C1625	NCBA1AK-473W	CAPACITOR	0.047μF,10V
C1626	NCBA1HK-331W	CAPACITOR	330pF,50V
C1627	NCBA1CK-822W	CAPACITOR	0.0082μF,16V
C1628	NCB21CK-224X	CAPACITOR	0.22μF,16V
C1632	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C1633	NCB21CK-474X	CAPACITOR	0.47μF,16V
C1641	NCB21CK-474X	CAPACITOR	0.47μF,16V
C2001	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2002	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2004	NCB21CK-105X	CAPACITOR	1μF,16V
C2005	NCB21CK-105X	CAPACITOR	1μF,16V
C2006	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C2007	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C2008	NCB21CK-105X	CAPACITOR	1μF,16V
C2009	NCB21CK-105X	CAPACITOR	1μF,16V
C2010	NCB21CK-105X	CAPACITOR	1μF,16V
C2011	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2012	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2013	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C2014	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C2015	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2016	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C2017	NCBA1AK-333W	CAPACITOR	0.033μF,10V
C2018	NCB31CK-104X	CAPACITOR	0.1μF,16V
C2019	NCB31CK-104X	CAPACITOR	0.1μF,16V
C2020	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C2021	NCBA1AK-104W	CAPACITOR	0.1μF,10V
C2101	NCB31CK-104X	CAPACITOR	0.1μF,16V
C2102	NCB31CK-104X	CAPACITOR	0.1μF,16V
C2103	NCB21CK-105X	CAPACITOR	1μF,16V
C2104	NCB21CK-105X	CAPACITOR	1μF,16V
C2109	NBE20JM-106X	T CAPACITOR	10μF,6.3V
C2110	NCB21CK-105X	CAPACITOR	1μF,16V
C2111	NCBA1EK-472W	CAPACITOR	0.0047μF,25V
C2112	NCBA1EK-472W	CAPACITOR	0.0047μF,25V
C2113	NCBA1EK-472W	CAPACITOR	0.0047μF,25V
C2114	NCBA1EK-472W	CAPACITOR	0.0047μF,25V
C2115	NCB31CK-104X	CAPACITOR	0.1μF,16V
C2116	NCB31CK-104X	CAPACITOR	0.1μF,16V
C2121	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C2122	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C2123	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C2124	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C2125	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C2126	NCBA1CK-223W	CAPACITOR	0.022μF,16V
C2131	NCBA1HK-102W	CAPACITOR	0.001μF,50V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C2132	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C2133	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C2134	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C2201	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C2202	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3001	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3003	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3005	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3006	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3007	NCB10JK-106X	CAPACITOR	10µF,6.3V
C3008	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3009	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3011	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3012	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3013	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3015	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3016	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3017	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3020	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3021	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3022	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3023	NDCA1HJ-330W	CAPACITOR	33pF,50V
C3024	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3025	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3026	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3027	NCBA1EK-472W	CAPACITOR	0.0047µF,25V
C3028	NDCA1EJ-271W	CAPACITOR	270pF,25V
C3029	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3030	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3031	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3032	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3033	NDCA1HJ-8R0W	CAPACITOR	8pF,50V
C3036	NDCA1HJ-8R0W	CAPACITOR	8pF,50V
C3037	NDCA1HJ-8R0W	CAPACITOR	8pF,50V
C3038	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3039	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3042	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3043	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3044	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3045	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3046	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3047	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3048	NCB31CK-473X	CAPACITOR	0.047µF,16V
C3049	NCBA1HK-222W	CAPACITOR	0.0022µF,50V
C3050	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3055	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3064	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3066	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3067	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3069	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3501	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3502	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3503	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3504	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3505	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C3506	NCB21AK-105X	CAPACITOR	1µF,10V
C3507	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3508	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3509	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3510	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3511	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3512	NCB31CK-104X	CAPACITOR	0.1µF,16V
C3513	NCBA1AK-104W	CAPACITOR	0.1µF,10V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C3514	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3515	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3516	NCBA1AK-473W	CAPACITOR	0.047µF,10V
C3517	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3518	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3519	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C3520	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3521	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C3522	NCB20JM-475X	CAPACITOR	4.7µF,6.3V
C3523	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3524	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3525	NCB20JM-475X	CAPACITOR	4.7µF,6.3V
C3526	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3527	NDCA1EJ-221W	CAPACITOR	220pF,25V
C3528	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3701	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C3702	NDCA1HJ-151W	CAPACITOR	150pF,50V
C3703	NDCA1HJ-330W	CAPACITOR	33pF,50V
C3704	NDCA1HJ-101W	CAPACITOR	100pF,50V
C3705	NDCA1HJ-330W	CAPACITOR	33pF,50V
C3706	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3707	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C3708	NCB30JK-105X	CAPACITOR	1µF,6.3V
C3709	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3710	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C3712	NEA70GM-337X	E CAPACITOR	330µF,4.0V
C3713	NEA70GM-337X	E CAPACITOR	330µF,4.0V
C4201	NBE40GM-107X	T CAPACITOR	100µF,4.0V
C4202	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4203	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4204	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4205	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4206	NCB21CK-105X	CAPACITOR	1µF,16V
C4207	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4208	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4209	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4210	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4211	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4212	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4213	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4214	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4215	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4216	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4217	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4301	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4303	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4304	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4305	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4306	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4307	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4308	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4309	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4310	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4311	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4312	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4313	NBE20JM-226X	T CAPACITOR	22µF,6.3V
C4314	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4315	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4317	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4318	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4319	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4320	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4321	NCBA1AK-104W	CAPACITOR	0.1µF,10V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C4323	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4324	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4325	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4327	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4328	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4329	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4331	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4333	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4334	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4335	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4336	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4337	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4338	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4339	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4340	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4341	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4342	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4343	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4344	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4345	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4346	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4347	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4348	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4349	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4350	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4360	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4361	NBP41EM-475X	T CAPACITOR	4.7µF,25V
C4366	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4367	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4369	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4370	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4372	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4373	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4374	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4379	NDCA1EJ-221W	CAPACITOR	220pF,25V
C4380	NDCA1HJ-9R0W	CAPACITOR	9pF,50V
C4381	NDCA1HJ-9R0W	CAPACITOR	9pF,50V
C4382	NDCA1HJ-9R0W	CAPACITOR	9pF,50V
C4601	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4602	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4603	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4604	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4605	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4606	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4607	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4608	NCB31CK-104X	CAPACITOR	0.1µF,16V
C4609	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4610	NCB30JK-105X	CAPACITOR	1µF,6.3V
C4611	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4612	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C4905	NDCA1HJ-330W	CAPACITOR	33pF,50V
C4906	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C4907	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C4908	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C4909	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C4910	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4911	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4914	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4915	NBE20JM-106X	T CAPACITOR	10µF,6.3V
C4916	NBE21AM-106X	T CAPACITOR	10µF,10V
C4917	NBE21AM-106X	T CAPACITOR	10µF,10V
C4918	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C4919	NCFA1AZ-104W	CAPACITOR	0.1µF,10V
C4920	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5501	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5503	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5504	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5505	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5506	NBE40GM-476X	T CAPACITOR	47µF,4.0V
C5507	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5508	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5509	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5510	NBP21VM-105X	T CAPACITOR	1µF,35V
C5511	NBP21DM-475X	T CAPACITOR	4.7µF,20V
C5512	NBE21AM-106X	T CAPACITOR	10µF,10V
C5513	NCB31CK-104X	CAPACITOR	0.1µF,16V
C5514	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5515	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5516	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5517	NCB31CK-104X	CAPACITOR	0.1µF,16V
C5518	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C5519	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6001	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6004	NCB30JK-105X	CAPACITOR	1µF,6.3V
C6005	NDCA1HJ-101W	CAPACITOR	100pF,50V
C6101	NCB21CK-105X	CAPACITOR	1µF,16V
C6102	NEA71CM-106X	E CAPACITOR	10µF,16V
C6103	NCB21CK-105X	CAPACITOR	1µF,16V
C6105	NCB21CK-105X	CAPACITOR	1µF,16V
C6106	NCB30JK-105X	CAPACITOR	1µF,6.3V
C6107	NCB30JK-105X	CAPACITOR	1µF,6.3V
C6108	NCB30JK-105X	CAPACITOR	1µF,6.3V
C6109	NCB30JK-105X	CAPACITOR	1µF,6.3V
C6110	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6111	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6112	NCBA1AK-333W	CAPACITOR	0.033µF,10V
C6113	NCBA1HK-561W	CAPACITOR	560pF,50V
C6114	NCBA1HK-272W	CAPACITOR	0.0027µF,50V
C6115	NCBA1HK-561W	CAPACITOR	560pF,50V
C6116	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6117	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6118	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6119	NDCA1HJ-101W	CAPACITOR	100pF,50V
C6120	NCB30JK-105X	CAPACITOR	1µF,6.3V
C6121	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6122	NCBA1CK-223W	CAPACITOR	0.022µF,16V
C6123	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6124	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6125	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6126	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6127	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C6128	NCB21CK-105X	CAPACITOR	1µF,16V
C6129	NCBA1HK-561W	CAPACITOR	560pF,50V
C6130	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6131	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6132	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6133	NCBA1HK-471W	CAPACITOR	470pF,50V
C6134	NCBA1AK-104W	CAPACITOR	0.1µF,10V
C6201	NCB21CK-105X	CAPACITOR	1µF,16V
C6202	NCB10JK-106X	CAPACITOR	10µF,6.3V
C6203	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C6204	NCBA1HK-561W	CAPACITOR	560pF,50V
C6205	NCB30JK-105X	CAPACITOR	1µF,6.3V
C6206	NCB21CK-105X	CAPACITOR	1µF,16V
C6207	NCB10JK-106X	CAPACITOR	10µF,6.3V
C6208	NCBA1EK-472W	CAPACITOR	0.0047µF,25V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
C6209	NCB21CK-105X	CAPACITOR	1µF,16V
C6210	NCB10JK-106X	CAPACITOR	10µF,6.3V
C6211	NCBA1HK-102W	CAPACITOR	0.001µF,50V
C6214	NCB21CK-105X	CAPACITOR	1µF,16V
C6215	NCB21CK-105X	CAPACITOR	1µF,16V
C6216	NCBA1AK-683W	CAPACITOR	0.068µF,10V
C6217	NCB21CK-105X	CAPACITOR	1µF,16V
C6218	NCB21CK-105X	CAPACITOR	1µF,16V
C6219	NCB21CK-224X	CAPACITOR	0.22µF,16V
C6220	NCB21CK-105X	CAPACITOR	1µF,16V
C6221	NCB11EK-105X	CAPACITOR	1µF,25V
C6222	NCB11EK-105X	CAPACITOR	1µF,25V
C6225	NCBA1CK-103W	CAPACITOR	0.01µF,16V
C6226	NCB21CK-105X	CAPACITOR	1µF,16V
C6227	NCB11EK-105X	CAPACITOR	1µF,25V
C6228	NCB11EK-105X	CAPACITOR	1µF,25V
C6230	NCB21CK-105X	CAPACITOR	1µF,16V
C6701	NCB21CK-105X	CAPACITOR	1µF,16V
C6703	NCB21CK-105X	CAPACITOR	1µF,16V
L1002	NQL315K-100X	COIL	10µH
L1401	NQR0006-001X	FERRITE BEAD	
L2001	NQL315K-100X	COIL	10µH
L2002	NQL38DK-220X	COIL	22µH
L2201	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
L2202	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
L2203	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
L3001	NQR0129-002X	FERRITE BEAD	
L3002	NQR0129-002X	FERRITE BEAD	
L3004	NQR0006-001X	FERRITE BEAD	
L3005	NQR0006-001X	FERRITE BEAD	
L3007	NQL085J-2R2X	COIL	2.2µH
L3008	NQL085J-120X	COIL	12µH
L3012	NQR0129-002X	FERRITE BEAD	
L3015	NQR0006-001X	FERRITE BEAD	
L3501	NQR0129-002X	FERRITE BEAD	
L3502	NQL402M-100X	COIL	10µH
L3503	NQR0006-001X	FERRITE BEAD	
L3504	NQR0006-001X	FERRITE BEAD	
L3505	NQR0006-001X	FERRITE BEAD	
L3701	NQL38DK-100X	COIL	10µH
L4201	NQR0129-002X	FERRITE BEAD	
L4301	NQR0129-002X	FERRITE BEAD	
L4302	NQR0129-002X	FERRITE BEAD	
L4303	NQL315K-100X	COIL	10µH
L4304	NQL315K-220X	COIL	22µH
L4305	NQR0129-002X	FERRITE BEAD	
L4306	NQR0129-002X	FERRITE BEAD	
L4307	NQL315K-100X	COIL	10µH
L4308	NQL38DK-100X	COIL	10µH
L4311	NQL38DK-100X	COIL	10µH
L4601	NQL302N-100X	COIL	10µH
L4901	NQL315K-100X	COIL	10µH
L4902	NQR0129-002X	FERRITE BEAD	
L4903	NQL315K-100X	COIL	10µH
L5501	NQL315K-100X	COIL	10µH
L5502	NQR0129-002X	FERRITE BEAD	
L5503	NQR0129-002X	FERRITE BEAD	
L5504	NQR0129-002X	FERRITE BEAD	
L5505	NQL315K-100X	COIL	10µH
L5506	NQL315K-100X	COIL	10µH
L6101	NQLZ011-4R7X	COIL	4.7µH
L6102	NQLZ011-4R7X	COIL	4.7µH
L6201	NQL52EM-390X	COIL	39µH
L6202	NQL52EM-390X	COIL	39µH
L6203	NQL52EM-390X	COIL	39µH
L6204	NQL144K-220X	COIL	22µH
L6206	NQLZ011-470X	COIL	47µH
L6207	NQLZ011-470X	COIL	47µH
L6208	NQLZ011-221X	COIL	220µH
L6701	NQLZ010-100X	COIL	10µH
X1001	NAX0474-001X	C OSCILLATOR	
X1002	NAX0325-001X	CRYSTAL RESONATOR	
X1401	NAX0204-001X	CRYSTAL RESONATOR	
X3002	NAX0480-001X	CRYSTAL RESONATOR	
X5501	NAX0356-001X	CXO	
K4311	NQR0129-002X	FERRITE BEAD	
WR1	WJJ0206-001A	E-SI C WIRE C-C,CN104-REAR UNIT	
J101	NNZ0041-001X	D CONNECTOR	
CN101	QGF0508F1-40X	FPC CONNECTOR	
CN103	QGF0505F1-20X	FPC CONNECTOR	
CN104	QGA1002C1-10X	CONNECTOR	
CN105	QGB0801K2-20X	CONNECTOR	
CN106	QGA1201C2-03X	CONNECTOR	
CN107	QGF0507F3-20X	FFC/FPC CONNECTOR	
CN108	QGF0507F3-22X	FFC/FPC CONNECTOR	
CN109	QGF0507F3-15X	FFC/FPC CONNECTOR	
CN110	QGF0505F1-08X	FPC CONNECTOR	
CN111	QGF0503C1-06V	FFC/FPC CONNECTOR	
CN112	QGF0505F2-18X	FPC CONNECTOR	
CN113	QGF0508F1-34X	FPC CONNECTOR	
⚠ F6101	NMFZ007-2R0X-K	FUSE	T2.0A,50V
OT1	LY43770-003A	SPACER(CAPSTAN)	
OT2	LY43770-004A	SPACER(CAPSTAN)	
SD1	LY32080-001A	SHIELD CASE	

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MONITOR BOARD ASSEMBLY <02>

PW	YB10369B	MONITOR BOARD ASSY	
IC7601	MN5814	IC	
IC7602	BA4558F	IC	
IC7603	SN74AHC1G04K	IC	
IC7604	TC7SH32FU	IC(DIGITAL)	
IC7605	TC7SH32FU	IC(DIGITAL)	
Q7601	2SC4617/QR/-X	TRANSISTOR	
Q7602	2SA1774/QR/-X	TRANSISTOR	
Q7603	2SC4617/QR/-X	TRANSISTOR	
Q7604	2SA1774/QR/-X	TRANSISTOR	
Q7606	DTA144EE	DIGI TRANSISTOR	
	or RN2104	DIGI TRANSISTOR	
	or UN9113J	DIGI TRANSISTOR	
Q7607	DTC144EE	DIGI TRANSISTOR	
	or RN1104	DIGI TRANSISTOR	
	or UN9213J	DIGI TRANSISTOR	
Q7609	DTC144EE	DIGI TRANSISTOR	
	or RN1104	DIGI TRANSISTOR	
	or UN9213J	DIGI TRANSISTOR	
D7601	MA365	VARI CAP DIODE	
D7602	RB471E	SB DIODE	
D7603	UDZS5.1B	ZENER DIODE	
R3	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R4	NRSA63J-152X	MG RESISTOR	1.5kΩ,1/16W

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
	R5	NRSA63J-182X	MG RESISTOR	1.8kΩ,1/16W
	R6	NRSA63J-272X	MG RESISTOR	2.7kΩ,1/16W
	R7601	NRSA63D-103X	MG RESISTOR	10kΩ,1/16W
	R7602	NRSA63D-752X	MG RESISTOR	7.5kΩ,1/16W
	R7603	NRSA63D-333X	MG RESISTOR	33kΩ,1/16W
	R7604	NRSA63J-123X	MG RESISTOR	12kΩ,1/16W
	R7605	NRSA63J-123X	MG RESISTOR	12kΩ,1/16W
	R7606	NRSA63D-153X	MG RESISTOR	15kΩ,1/16W
	R7607	NRSA63D-822X	MG RESISTOR	8.2kΩ,1/16W
	R7608	NRSA63J-682X	MG RESISTOR	6.8kΩ,1/16W
	R7610	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
	R7611	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
	R7612	NRSA63J-474X	MG RESISTOR	470kΩ,1/16W
	R7613	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
	R7614	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7618	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7621	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
	R7622	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7624	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
	R7625	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7628	NRSA63J-470X	MG RESISTOR	47Ω,1/16W
	R7629	NRSA63J-470X	MG RESISTOR	47Ω,1/16W
	R7630	NRSA63J-470X	MG RESISTOR	47Ω,1/16W
	R7631	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7633	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
	R7635	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
	R7636	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
	R7637	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
	R7638	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
	R7639	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
	R7640	NRSA02J-561X	MG RESISTOR	560Ω,1/10W
	R7641	NRSA02J-561X	MG RESISTOR	560Ω,1/10W
	R7645	NRSA63D-752X	MG RESISTOR	7.5kΩ,1/16W
	R7646	NRSA63J-392X	MG RESISTOR	3.9kΩ,1/16W
	R7648	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
	R7650	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
	R7651	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7662	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7664	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7665	NRSA63J-223X	MG RESISTOR	22kΩ,1/16W
	C1	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7601	NBE20JM-106X	T CAPACITOR	10μF,6.3V
	C7602	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7603	NBP41EM-475X	T CAPACITOR	4.7μF,25V
	C7604	NBE20JM-106X	T CAPACITOR	10μF,6.3V
	C7606	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7607	NBP41EM-475X	T CAPACITOR	4.7μF,25V
	C7608	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7609	NBP41CM-106X	T CAPACITOR	10μF,16V
	C7610	NDC31HJ-330X	CAPACITOR	33pF,50V
	C7611	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7612	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7613	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7614	NCB21CK-334X	CAPACITOR	0.33μF,16V
	C7615	NDC31HJ-331X	CAPACITOR	330pF,50V
	C7616	NDC31HJ-560X	CAPACITOR	56pF,50V
	C7617	NDC31HJ-220X	CAPACITOR	22pF,50V
	C7618	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7619	NDC31HJ-270X	CAPACITOR	27pF,50V
	C7620	NDC31HJ-270X	CAPACITOR	27pF,50V
	C7621	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7622	NCB11CK-225X	CAPACITOR	2.2μF,16V
	C7623	NCB31EK-682X	CAPACITOR	0.0068μF,25V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
	C7624	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7625	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7626	NBP41EM-475X	T CAPACITOR	4.7μF,25V
	C7627	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7632	NCF31CZ-104X	CAPACITOR	0.1μF,16V
	C7634	NCF31CZ-104X	CAPACITOR	0.1μF,16V
	L7601	NQL315K-100X	COIL	10μH
	L7602	NQL315K-100X	COIL	10μH
	L7604	NQL315K-100X	COIL	10μH
	L7605	NQL085J-4R7X	COIL	4.7μH
	L7606	NQL315K-100X	COIL	10μH
	SW2	NSW0008-001X	TACT SWITCH,STOP/BACKLIGHT	
	SW3	NSW0008-001X	TACT SWITCH,REW/NIGHT ALIVE	
	SW4	NSW0008-001X	TACT SWITCH,PLAY/PAUSE	
	SW5	NSW0008-001X	TACT SWITCH,FF	
	SW7601	NSW0105-001X	DETECT SWITCH,MONITOR OPEN	
⚠	BT1	QAB0025-001	LI BATTERY	
	CN761	QGF0508F1-40X	FPC CONNECTOR	
	CN763	QGF0507F3-20X	FFC/FPC CONNECTOR	
	CN764	QGF0508F1-33X	FPC CONNECTOR	

****

LCD BL BOARD ASSEMBLY <03>

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	
	PW	YB20929A-01	LCD BL BOARD ASSY	
	Q7501	2SD1664/QR/-W	TRANSISTOR	
	Q7502	2SD1664/QR/-W	TRANSISTOR	
	Q7503	DTA144EE	DIGI TRANSISTOR	
		or RN2104	DIGI TRANSISTOR	
		or UN9113J	DIGI TRANSISTOR	
	Q7504	2SC4617/QR/-X	TRANSISTOR	
		or 2SC4738/YG/-X	TRANSISTOR	
		or 2SD2216J/QR/-X	TRANSISTOR	
	R7501	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
	R7502	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
	R7503	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
	R7506	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
	R7507	NRSA63J-473X	MG RESISTOR	47kΩ,1/16W
	R7511	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7519	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7520	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	R7521	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
	C7501	NCZ1016-180X	CAPACITOR	18pF,2kV
	C7503	NCB31EK-273X	CAPACITOR	0.027μF,25V
	C7504	NCB31EK-103X	CAPACITOR	0.01μF,25V
	C7505	NBE20JM-106X	T CAPACITOR	10μF,6.3V
	L7501	NQLZ010-680X	COIL	68μH
	T7501	NQS0048-001X	SW TRANSF	
	CN751	QGF0506F2-32X	FPC CONNECTOR	
	CN752	QGF0503F1-24X	FFC/FPC CONNECTOR	
⚠	F7501	NMFZ007-R40X-K	FUSE	T0.4A,50V

# ⚠ REF No.	PART No.	PART NAME, DESCRIPTION	

****

CCD BOARD ASSEMBLY <04>

PW	YB20924A-SS	CCD BOARD ASSY	
Q5001	2SC3931/CD/-X	TRANSISTOR	
R5001	NRSA63J-472X	MG RESISTOR	4.7kΩ,1/16W
R5003	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R5005	NRSA63J-105X	MG RESISTOR	1MΩ,1/16W
C5001	NCB31CK-104X	CAPACITOR	0.1μF,16V
C5002	NBP41VM-225X	T CAPACITOR	2.2μF,35V
C5003	NCB31CK-104X	CAPACITOR	0.1μF,16V
C5004	NBP41CM-106X	T CAPACITOR	10μF,16V
C5005	NCB31CK-104X	CAPACITOR	0.1μF,16V
C5006	NCB31CK-104X	CAPACITOR	0.1μF,16V
C5007	NCB31HK-102X	CAPACITOR	0.001μF,50V
C5010	NCB31EK-103X	CAPACITOR	0.01μF,25V
L5001	NQL315K-100X	COIL	10μH
CN5001	QGF0505F1-20X	FPC CONNECTOR	

****

JUNCTION BOARD ASSEMBLY <05>

PW2	YB20925A2-01	JUNCTION BOARD ASSY	
D571	SML-010MT-X	LE DIODE	
SW571	NSW0120-002X	PUSH SWITCH,OPEN EJECT	
CN571	QGF0508F1-34X	FPC CONNECTOR	
CN572	QGF0507F3-15X	FFC/FPC CONNECTOR	
CN573	QGF0505F2-11X	FPC CONNECTOR	
CN574	QGF0505F2-06X	FPC CONNECTOR	

****

JACK BOARD ASSEMBLY <06>

PW1	YB20925A1-01	JACK BOARD ASSY	
IC501	BA10358F-XE	IC	
IC502	RPM7138-V4	IR DETECT UNIT	
Q501	RPM-22PB	PHOTO TRANSISTOR	
D501	MA8068	ZENER DIODE	
D502	MA8068	ZENER DIODE	
D504	MA8068	ZENER DIODE	
R501	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R502	NRSA63J-684X	MG RESISTOR	680kΩ,1/16W
R503	NRSA63J-182X	MG RESISTOR	1.8kΩ,1/16W
R504	NRSA63J-222X	MG RESISTOR	2.2kΩ,1/16W
R505	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R506	NRSA63J-824X	MG RESISTOR	820kΩ,1/16W
R507	NRSA63J-104X	MG RESISTOR	100kΩ,1/16W
R508	NRSA63J-683X	MG RESISTOR	68kΩ,1/16W
R509	NRSA63J-822X	MG RESISTOR	8.2kΩ,1/16W
R510	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R511	NRSA63J-302X	MG RESISTOR	3kΩ,1/16W
R512	NRSA63J-470X	MG RESISTOR	47Ω,1/16W
R513	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R514	NRSA63J-101X	MG RESISTOR	100Ω,1/16W
R525	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R526	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R527	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
C501	NBE21AM-335X	T CAPACITOR	3.3μF,10V
C502	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C503	NCB31EK-153X	CAPACITOR	0.015μF,25V
C504	NCB31EK-153X	CAPACITOR	0.015μF,25V
C506	NBE21AM-106X	T CAPACITOR	10μF,10V
C509	NBE20JM-226X	T CAPACITOR	22μF,6.3V
C514	NCB31HK-103X	CAPACITOR	0.01μF,50V
C515	NCB31HK-103X	CAPACITOR	0.01μF,50V
L501	NQR0251-004X	FERRITE BEAD	
L502	NQR0251-004X	FERRITE BEAD	
L503	NQR0251-004X	FERRITE BEAD	
J501	QNS0078-001	3.5 JACK	
J503	QND0004-001	S JACK	
CN502	QGF0508F1-20X	FPC CONNECTOR	

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B/W VF BOARD ASSEMBLY <08>

PW	YB20910B	B/W VF BOARD ASSY	
IC7001	MCVVQ111FB	IC	
Q7001	PUMX1	PAIR TRANSISTOR	
D7001	NSCW100A0/ST/-X	LE DIODE	
D7002	MA111	DIODE	
R7001	NRSA63J-103X	MG RESISTOR	10kΩ,1/16W
R7002	NRSA63J-182X	MG RESISTOR	1.8kΩ,1/16W
R7003	NRSA63J-183X	MG RESISTOR	18kΩ,1/16W
R7004	NRSA63J-0R0X	MG RESISTOR	0Ω,1/16W
R7006	NRVA63D-333X	CMF RESISTOR	33kΩ,1/16W
R7007	NRVA63D-153X	CMF RESISTOR	15kΩ,1/16W
R7008	NRVA63D-473X	CMF RESISTOR	47kΩ,1/16W
R7009	NRSA63J-682X	MG RESISTOR	6.8kΩ,1/16W
R7010	NRSA63J-102X	MG RESISTOR	1kΩ,1/16W
R7011	NRSA63J-332X	MG RESISTOR	3.3kΩ,1/16W
R7012	NRSA63J-561X	MG RESISTOR	560Ω,1/16W
R7013	NRSA63J-470X	MG RESISTOR	47Ω,1/16W
VR7001	NVP0016-223X	TRIM RESISTOR,GAIN	
C7001	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7002	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7003	NCB21AK-105X	CAPACITOR	1μF,10V
C7004	NCB31EK-223X	CAPACITOR	0.022μF,25V
C7005	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7006	NCF21CZ-105X	CAPACITOR	1μF,16V
C7007	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7008	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7009	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7010	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7011	NCB31HK-102X	CAPACITOR	0.001μF,50V
C7012	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7013	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7014	NCF31CZ-104X	CAPACITOR	0.1μF,16V
C7015	NCB31EK-103X	CAPACITOR	0.01μF,25V
C7016	NCB11CK-475X	CAPACITOR	4.7μF,16V
C7017	NCB10JK-106X	CAPACITOR	10μF,6.3V
L7001	NQL38DK-100X	COIL	10μH
L7002	NQL38DK-100X	COIL	10μH
CN7001	QGF0517F1-06X	FPC CONNECTOR	
CN7002	QGF0517F2-20X	FPC CONNECTOR	

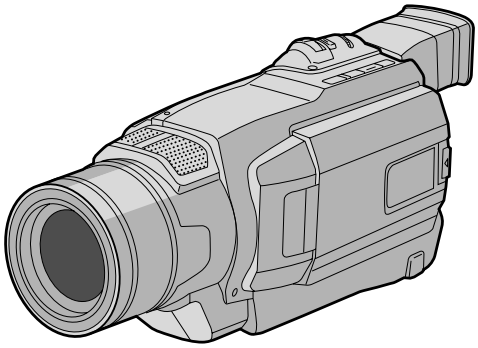
JVC

SCHEMATIC DIAGRAMS

DIGITAL VIDEO CAMERA

GR-DVL145EG

CD-ROM No.SML200205



Mini DV PAL

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVL145EG/EK)*

Camcorder

General

Power supply	: DC 11.0 V ⎓ (Using AC Adapter) DC 7.2 V ⎓ (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	: Approx. 4.3 W
LCD monitor on, viewfinder off	: Approx. 5.3 W
Dimensions (W x H x D)	: 83 mm x 94 mm x 223 mm (with the LCD monitor closed and the viewfinder pushed down)
Weight	: Approx. 630 g
Operating temperature	: 0°C to 40°C
Operating humidity	: 35% to 80%
Storage temperature	: –20°C to 50°C
Pickup	: 1/4" CCD
Lens	: F 1.6, f = 3.9 mm to 62.4 mm, 16:1 power zoom lens
Filter diameter	: ø40.5 mm
LCD monitor	: 2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder	: Electronic viewfinder with 0.24" black/white LCD
Speaker	: Monaural

Digital Video Camera

Format	: DV format (SD mode)
Signal format	: PAL standard
Recording/Playback format	: Video: Digital component recording : Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	: Mini DV cassette
Tape speed	: SP: 18.8 mm/s LP: 12.5 mm/s
Maximum recording time (using 80 min. cassette)	: SP: 80 min. LP: 120 min.

Connectors

S-Video	
Output	: Y: 1 V (p-p), 75 Ω, analogue C: 0.29 V (p-p), 75 Ω, analogue
AV	
Video output	: 1 V (p-p), 75 Ω, analogue
Audio output	: 300 mV (rms), 1 kΩ, analogue, stereo
DV	
Output	: 4-pin, IEEE 1394 compliant

AC Adapter

Power requirement	: AC 110 V to 240 V∿, 50 Hz/60 Hz
Output	: DC 11 V ⎓, 1 A

Specifications shown are for SP mode unless otherwise indicated. E & O.E.
Design and specifications subject to change without notice.

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No. 86693SCH
April 2002

SECTION 4
CHARTS AND DIAGRAMS

NOTES OF SCHEMATIC DIAGRAM

Safety precautions
The Components identified by the symbol ⚠ are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.

1. Units of components on the schematic diagram

Unless otherwise specified.

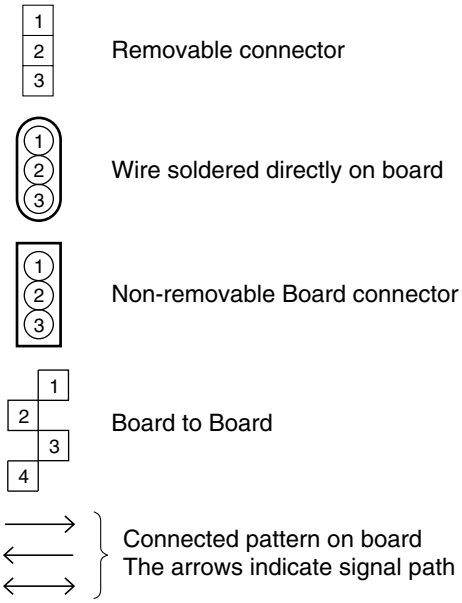
1) All resistance values are in ohm. 1/6 W, 1/8 W (refer to parts list).
   Chip resistors are 1/16 W.
   K: KΩ (1000Ω), M: MΩ (1000KΩ)
2) All capacitance values are in μF, (P: PF).
3) All inductance values are in μH, (m: mH).
4) All diodes are 1SS133, MA165 or 1N4148M (refer to parts list).

2. Indications of control voltage

AUX : Active at high.

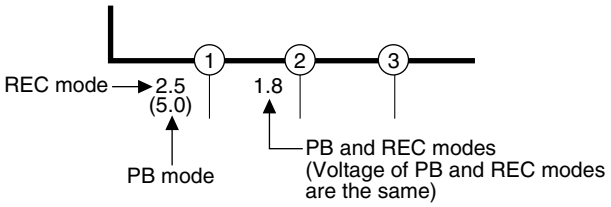
$\overline{AUX}$ or AUX(L) : Active at low.

3. Interpreting Connector indications



4. Voltage measurement

1) Regulator (DC/DC CONV) circuits
   REC : Colour bar signal.
   PB : Alignment tape (Colour bar).
   — : Unmeasurable or unnecessary to measure.
4) Indication on schematic diagram
   Voltage Indications for REC and PB mode on the schematic diagram are as shown below.

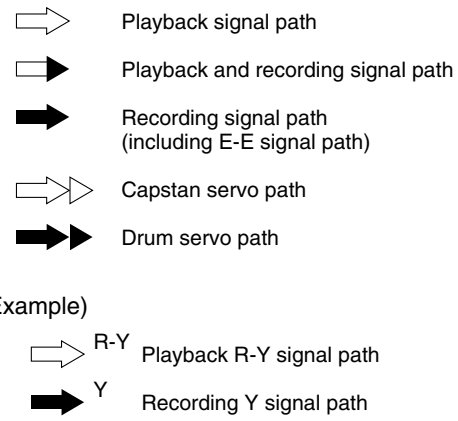


Note: If the voltages are not indicated on the schematic diagram, refer to the voltage charts.

5. Signal path Symbols

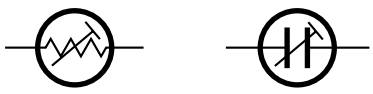
The arrows indicate the signal path as follows.

NOTE : The arrow is DVC unique object.



6. Indication of the parts for adjustments

The parts for the adjustments are surrounded with the circle as shown below.



7. Indication of the parts not mounted on the circuit board

"OPEN" is indicated by the parts not mounted on the circuit board.

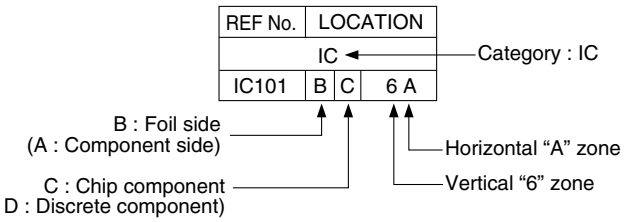
CIRCUIT BOARD NOTES

1. Foil and Component sides

1) Foil side (B side) :
   Parts on the foil side seen from foil face (pattern face) are indicated.
2) Component side (A side) :
   Parts on the component side seen from component face (parts face) indicated.

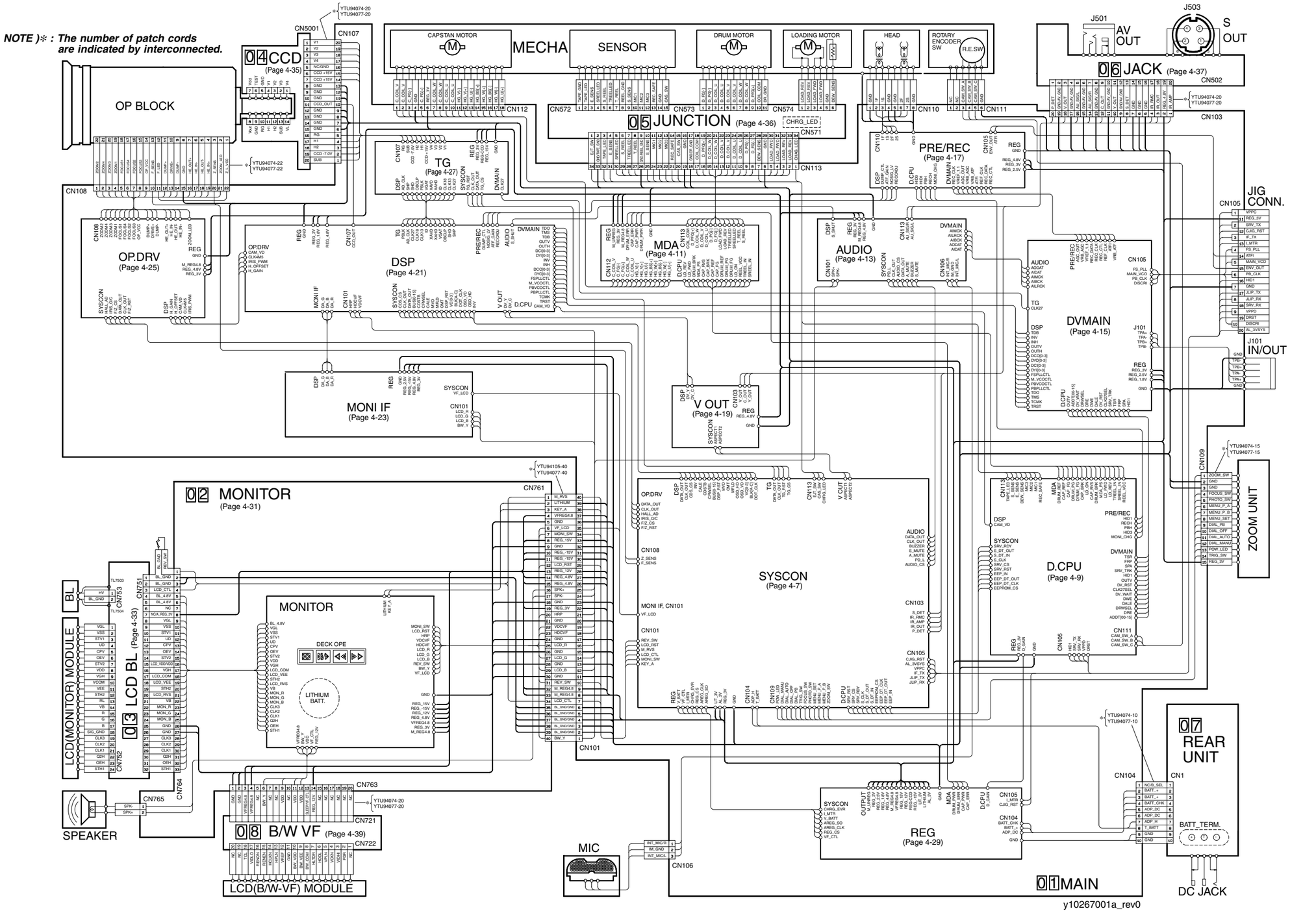
2. Parts location guides

Parts location are indicated by guide scale on the circuit board.



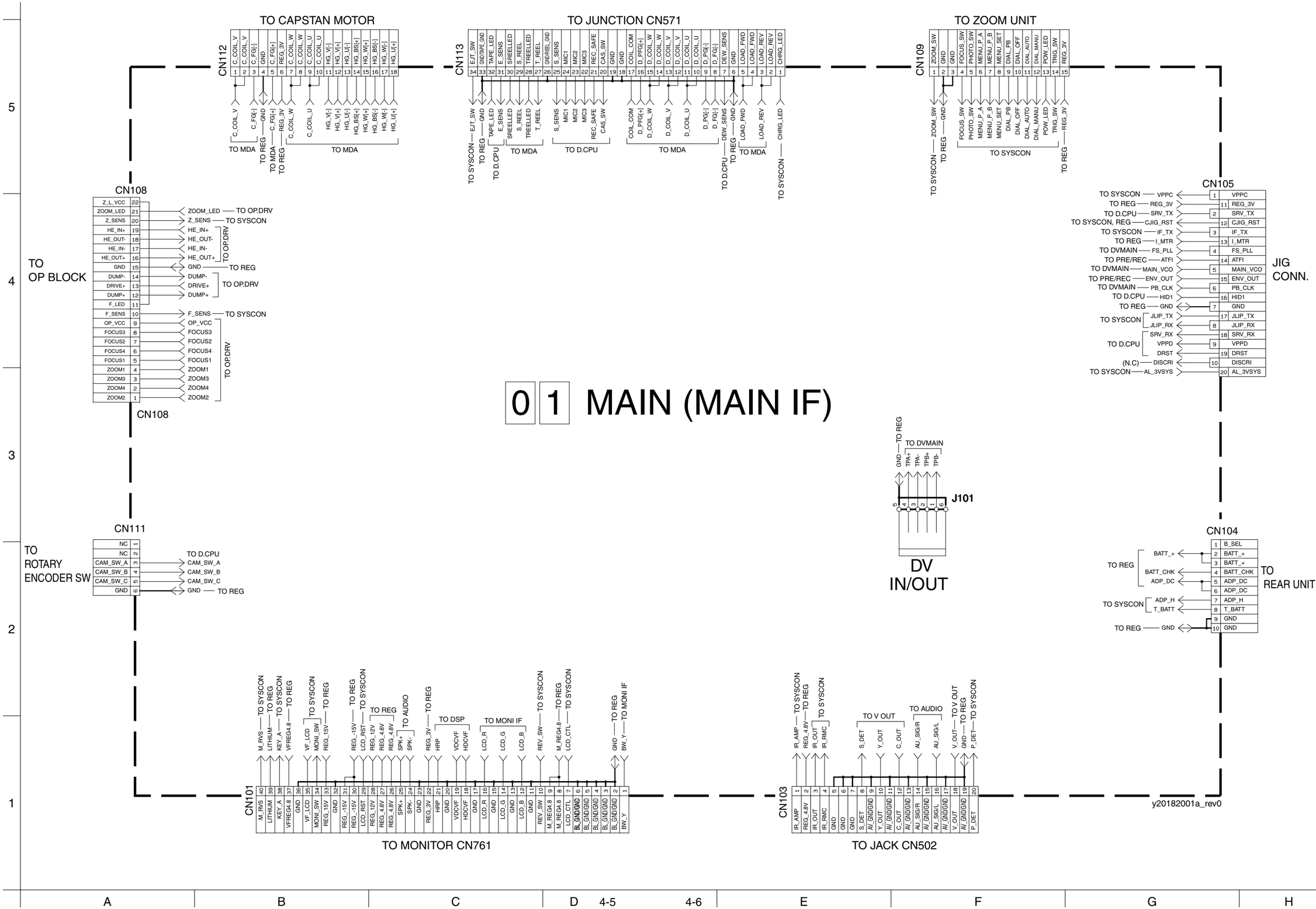
Note: For general information in service manual, please refer to the Service Manual of GENERAL INFORMATION Edition 4 No. 82054D (January 1994).

4.1 BOARD INTERCONNECTIONS



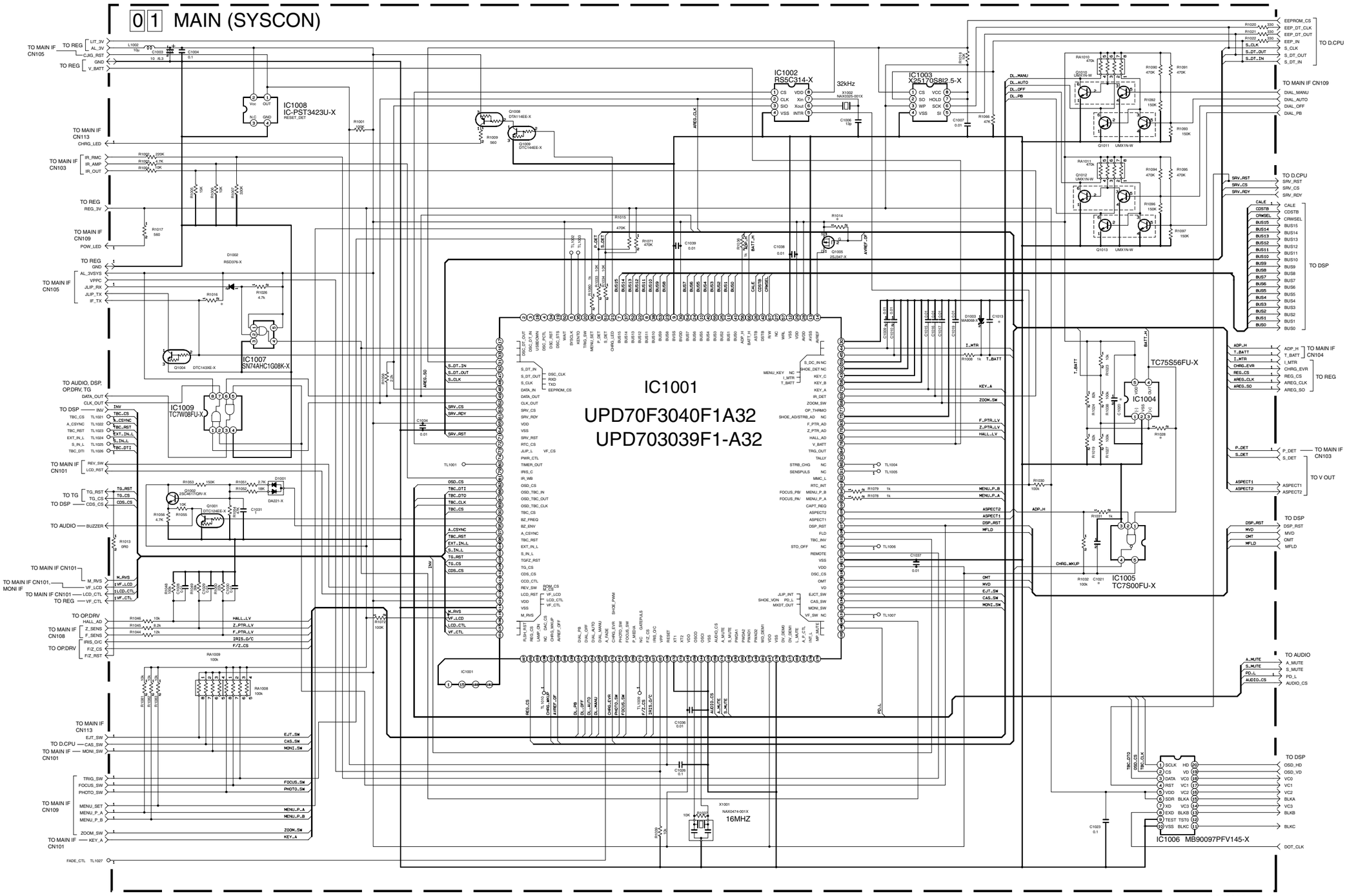
4.2 MAIN IF SCHEMATIC DIAGRAM

0 1 MAIN (MAIN IF)



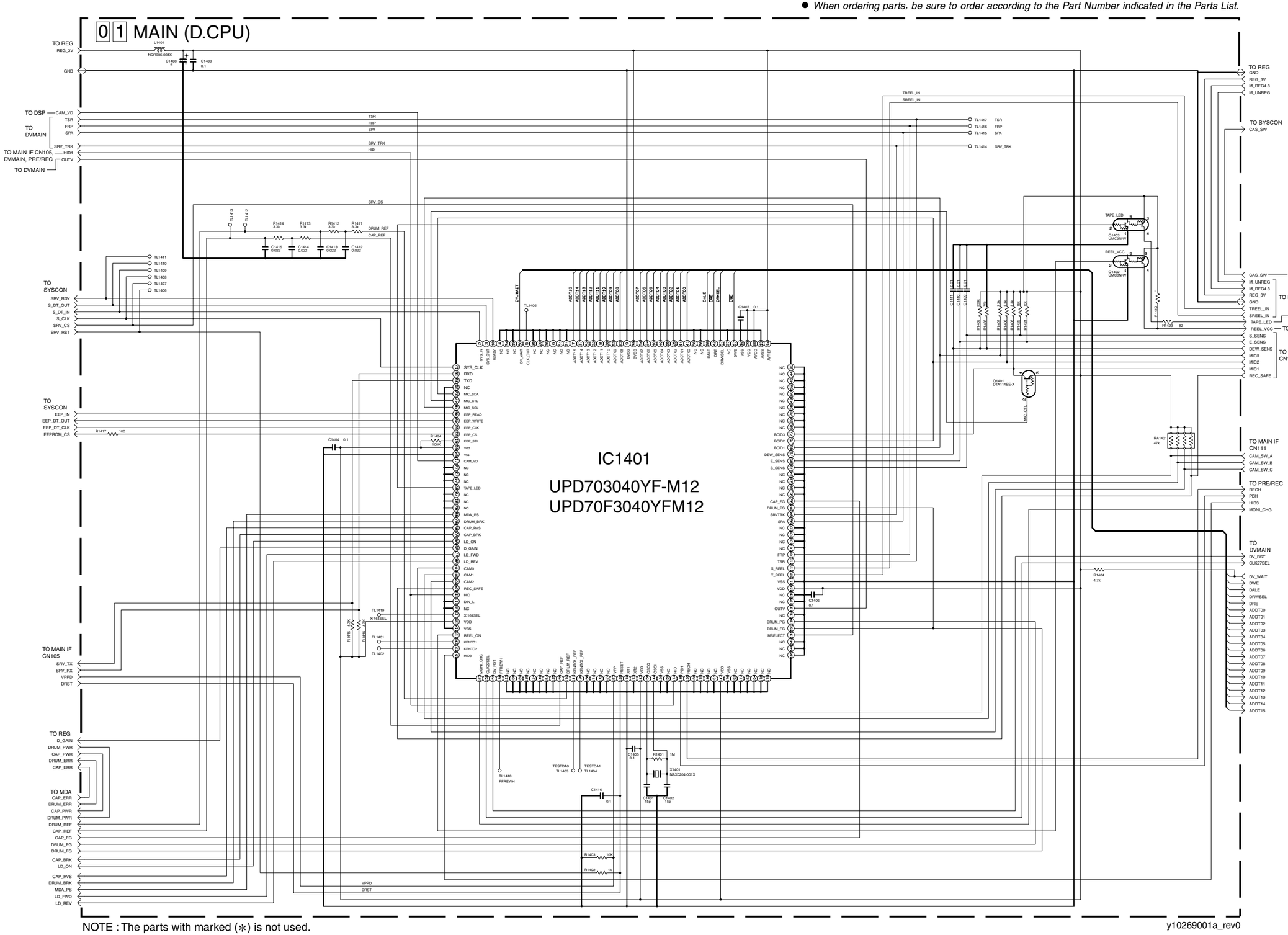
4.3 SYSCON SCHEMATIC DIAGRAM

NOTES :
- *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
- *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



4.4 D.CPU SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

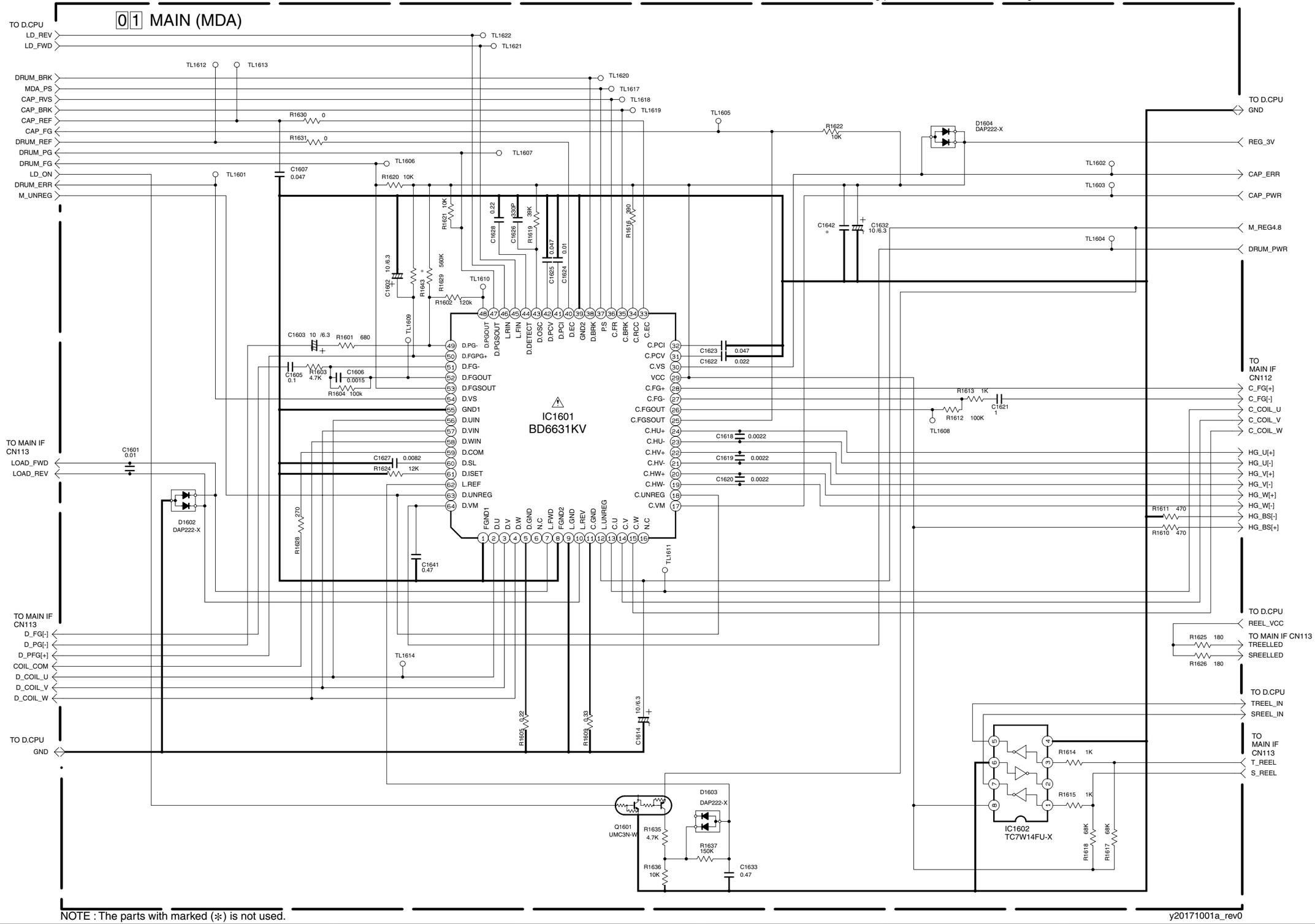


NOTE : The parts with marked (⁎) is not used.

y10269001a_rev0

4.5 MDA SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTE : The parts with marked (*) is not used.

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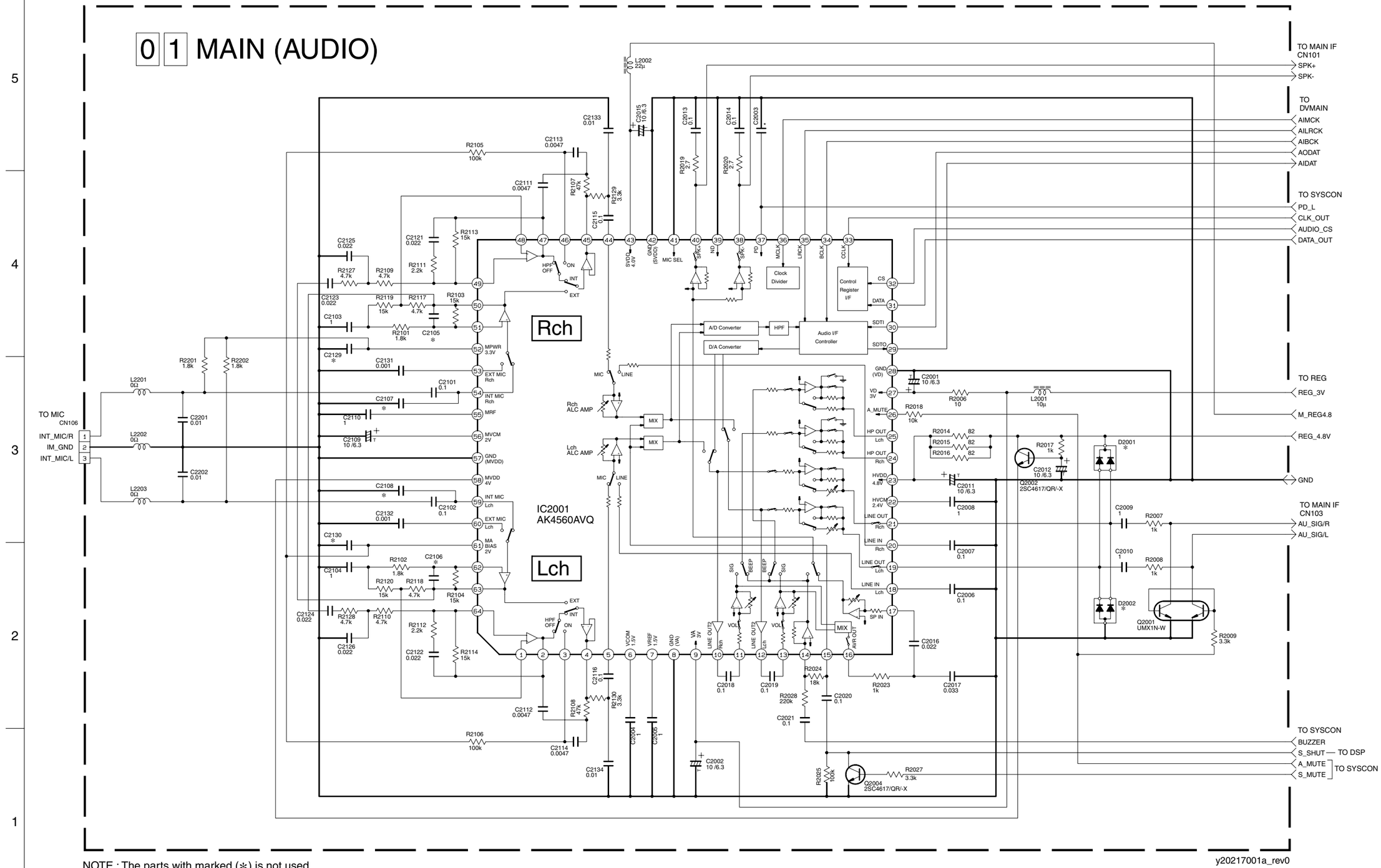
4.6 AUDIO SCHEMATIC DIAGRAM

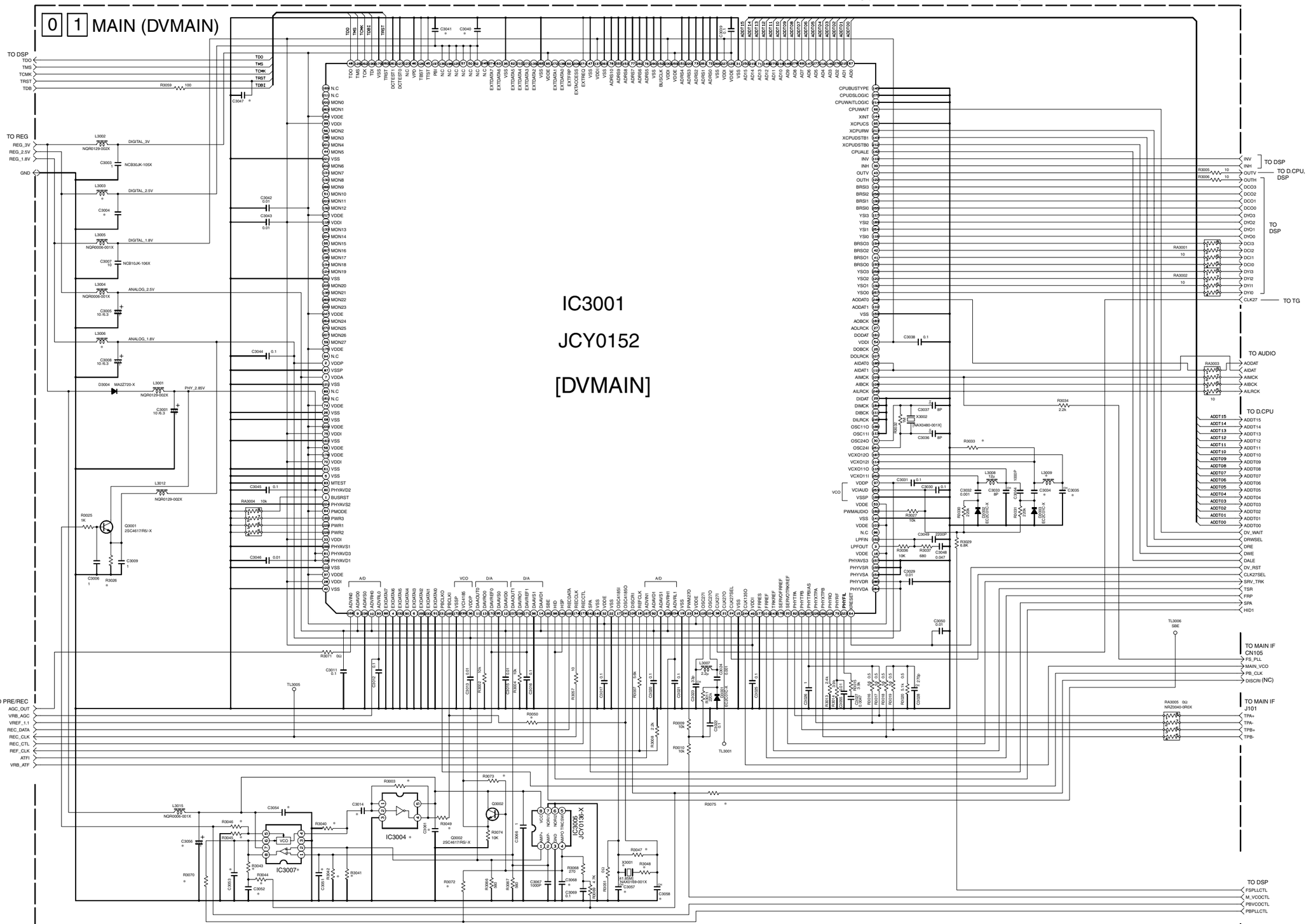
NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTE : The parts with marked (✻) is not used.

4.7 DVMAIN SCHEMATIC DIAGRAM

NOTES :
- *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
- *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

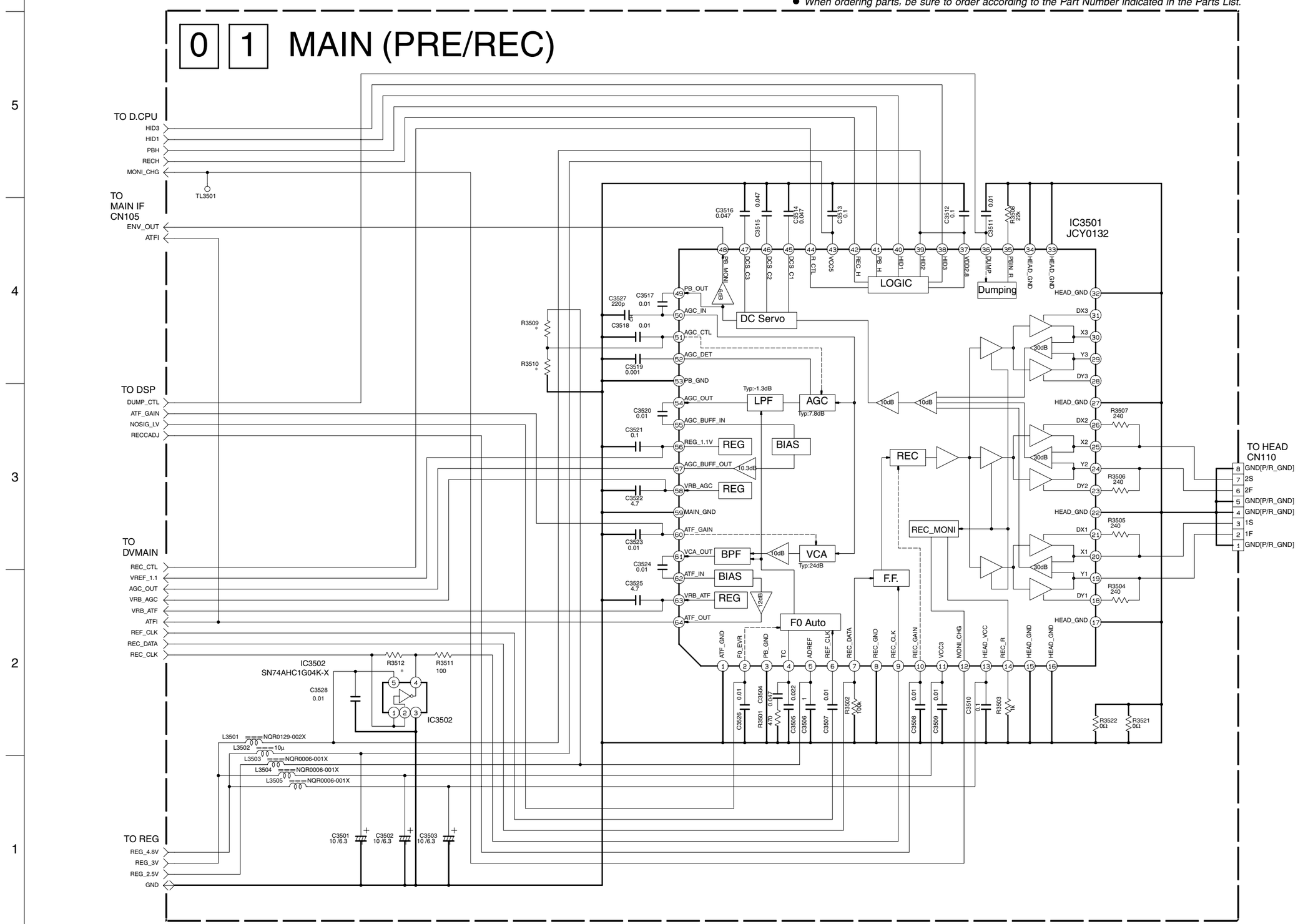


NOTE : The parts with marked (*) is not used.

y10253001a_rev0

4.8 PRE/REC SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTE : The parts with marked (*) is not used.

y20172001a_rev0

4.9 V OUT SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

0 1 MAIN (V OUT)

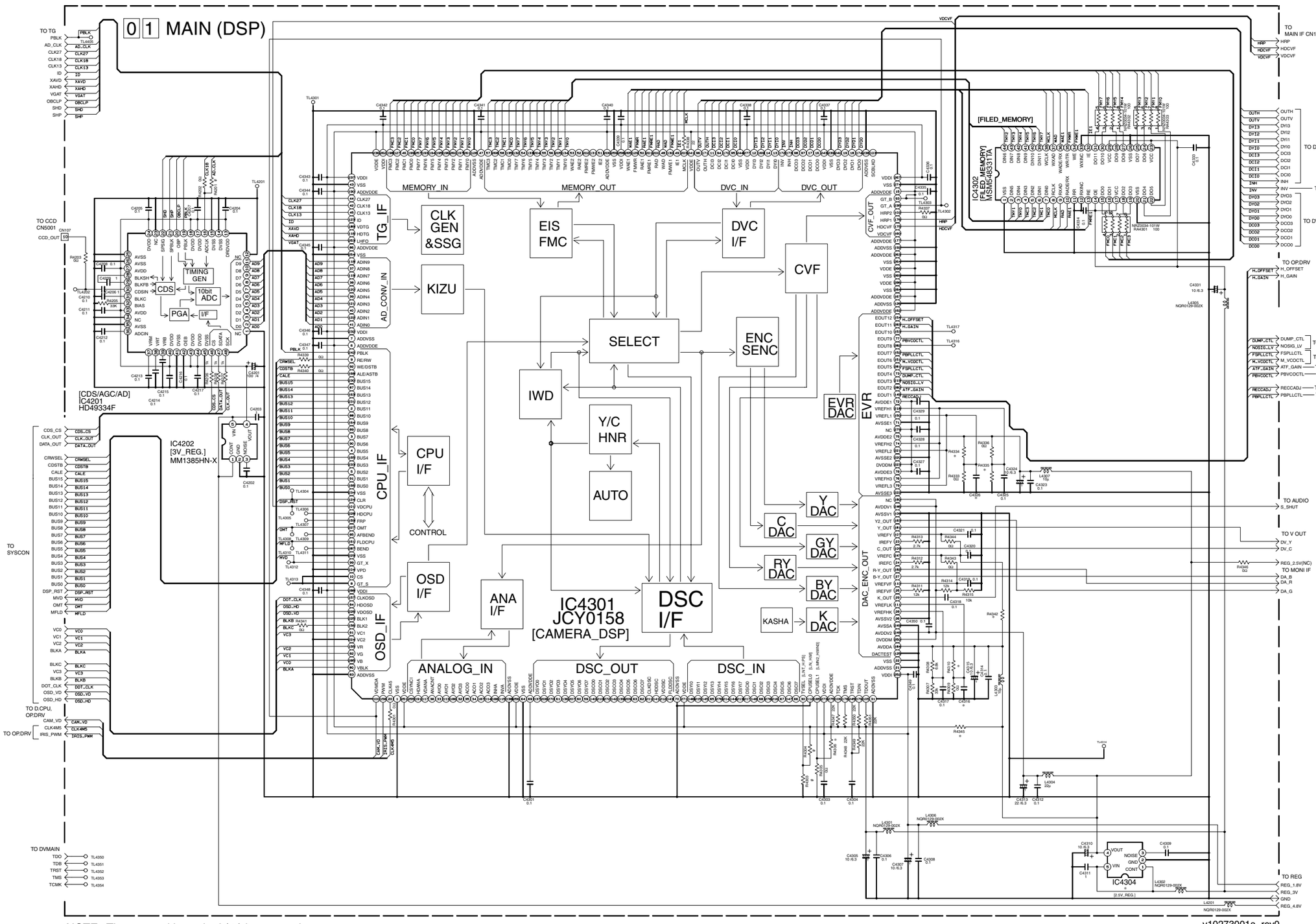
TO REG
REG_4.8V
GND
L3701 10µ
C3701 10 /6.3
C3707 0.1
IC3701 BA7665FS-X
Mute
R3703 4.7k
C3708 1
C3702 150p
R3702 240
Q3701 UMT2N-W
R3701 240
C3703 33p
C3709 0.01
20k
Chroma Mute
R3708 4.7k
C3704 100p
R3707 220
Q3701
R3724 3.9k
R3706 220
C3705 33p
C3706 0.01
TO DSP
DV_Y
DV_C
C3713 330 /4
R3711 68
C3712 330 /4
R3712 68
C3710 0.01
R3713 68
D3701 *
R3716 *
Q3702 UMZ1N-W
R3719 10k
R3714 12k
R3715 10k
C3715 *
R3717 560
R3718 560
TO SYSCON
ASPECT1
ASPECT2
S_DET
Y_OUT
C_OUT
TO MAIN IF CN103
GND — TO REG
S_DET
V_OUT
TO MAIN IF CN103

NOTE : The parts with marked (*) is not used.

y30160001a_rev0

4.10 DSP SCHEMATIC DIAGRAM

NOTES :
- *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
- *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



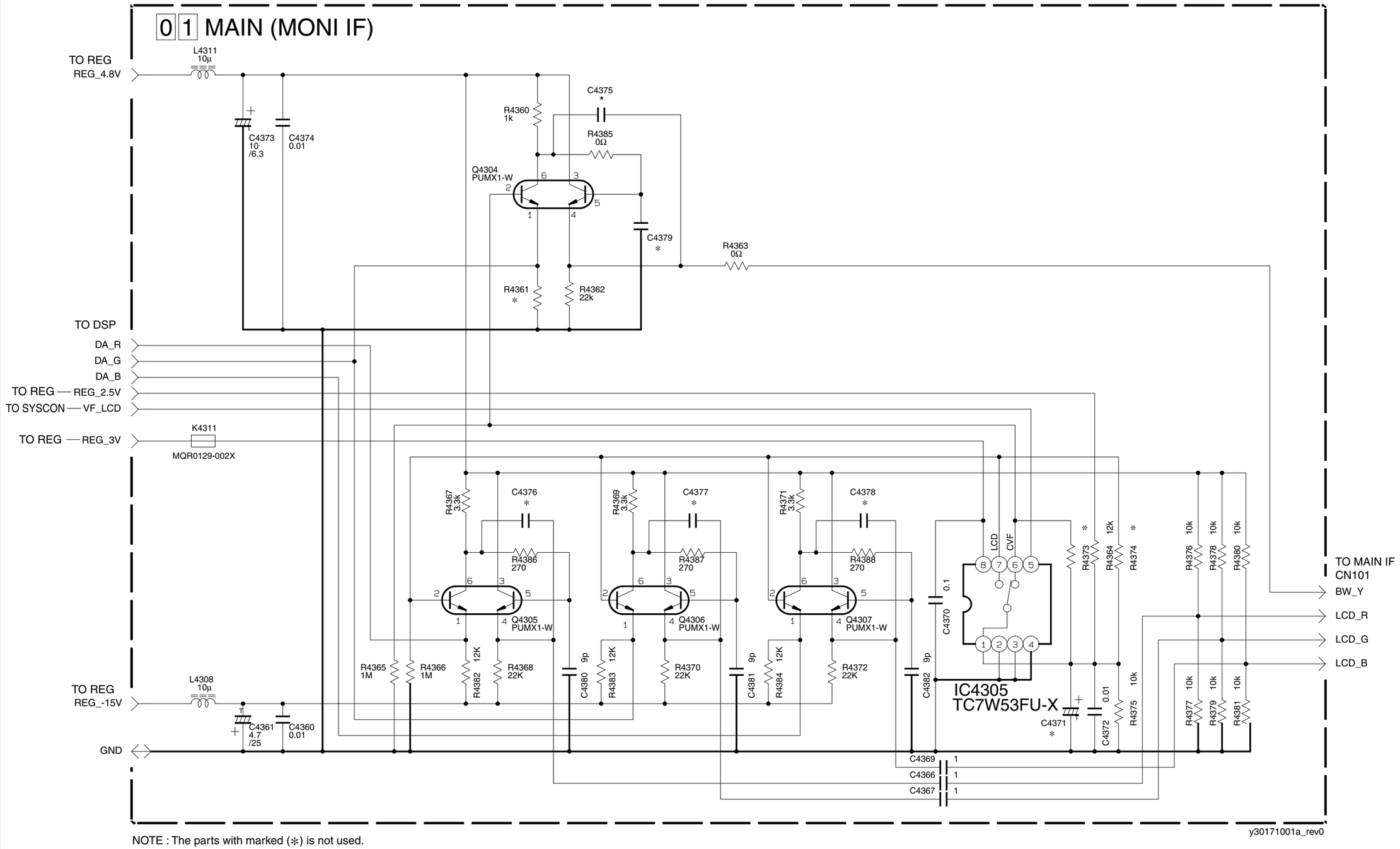
NOTE : The parts with marked (*) is not used.

#Difference Point

	R4302	R4303
NTSC	0Ω	*
PAL	*	0Ω

4.11 MONI IF SCHEMATIC DIAGRAM

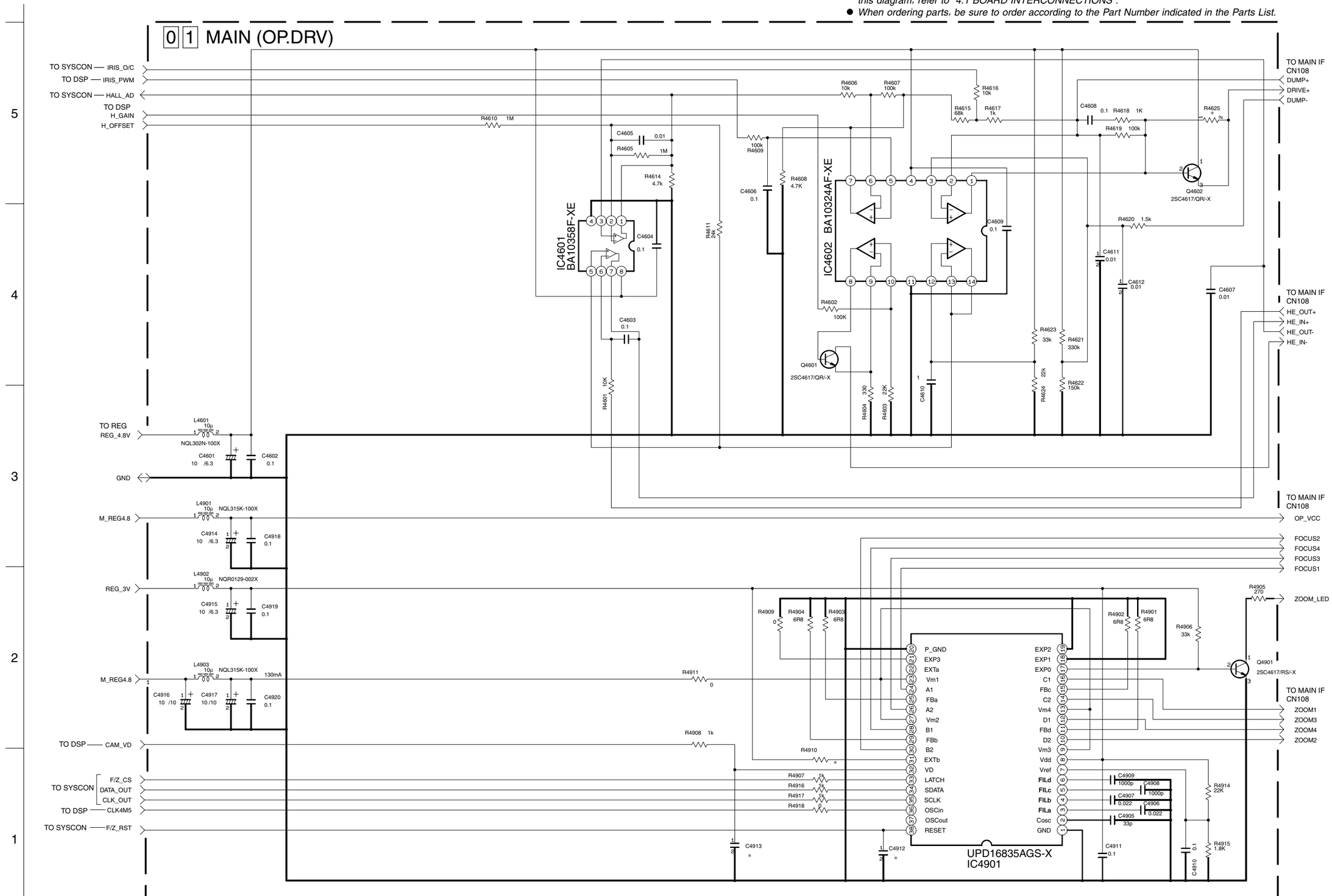
NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTE : The parts with marked (*) is not used.

4.12 OP.DRV SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

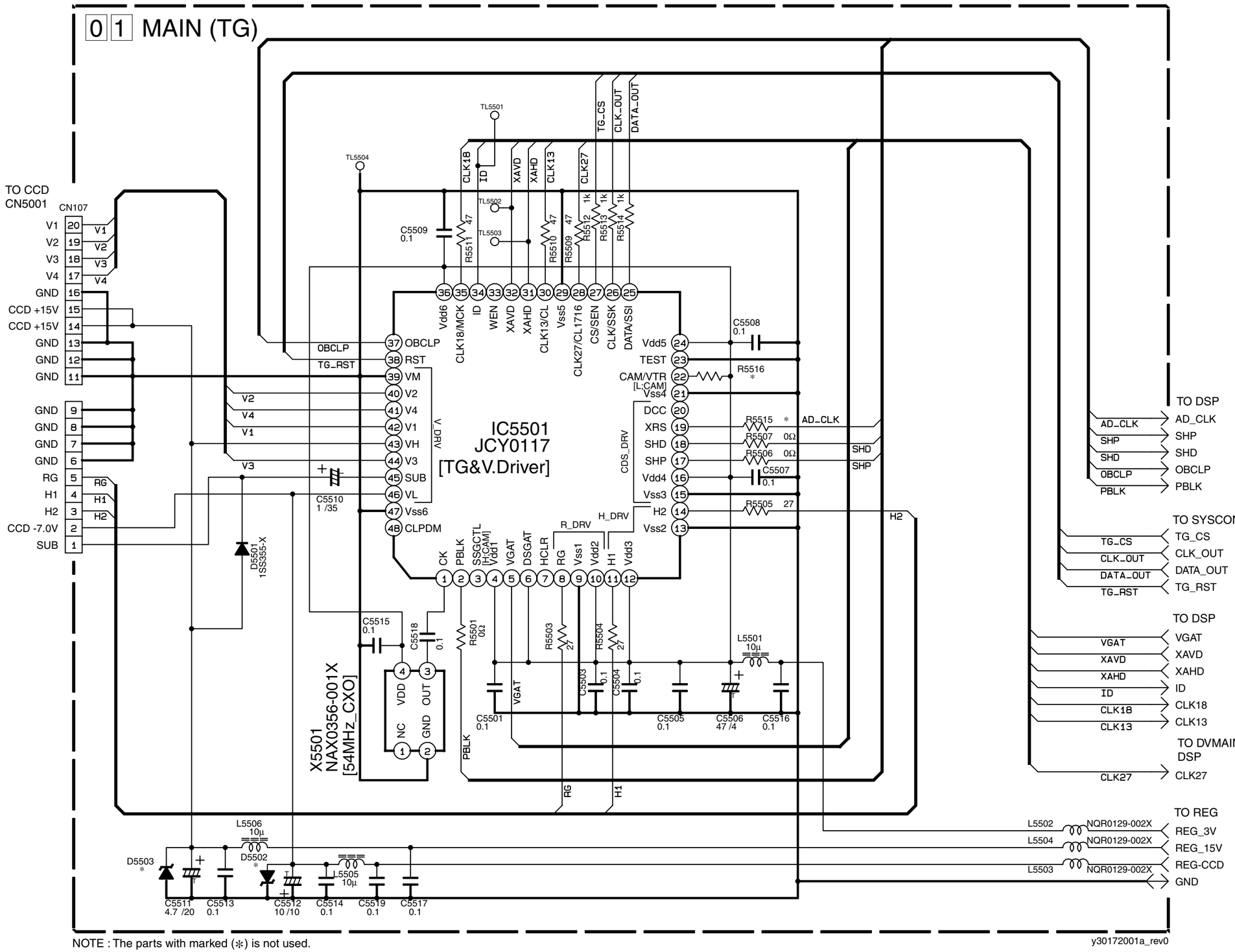


NOTE : The parts with marked (*) is not used.

y20184001a_rev0.1

4.13 TG SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



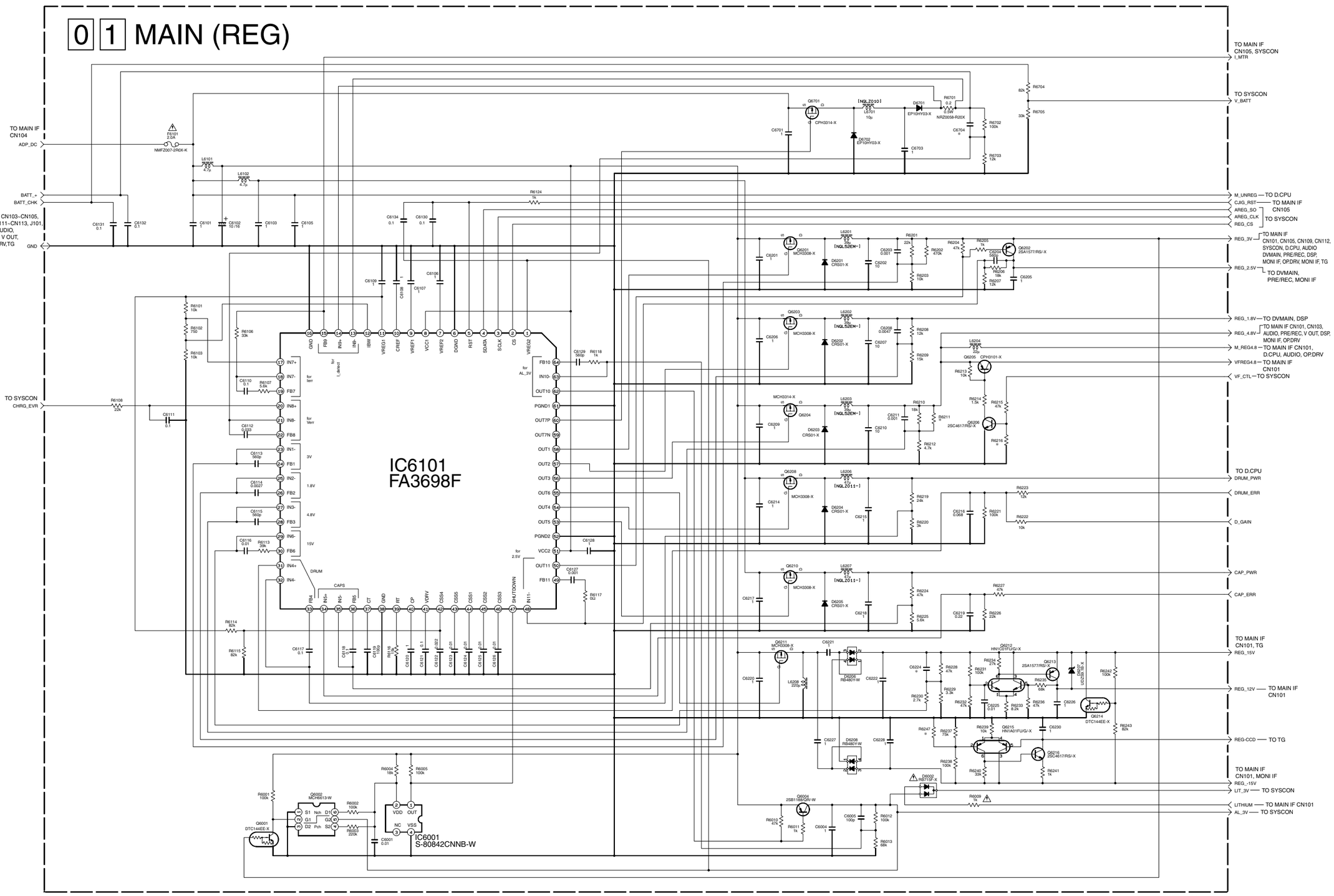
NOTE : The parts with marked (*) is not used.

y30172001a_rev0

4.14 REG SCHEMATIC DIAGRAM

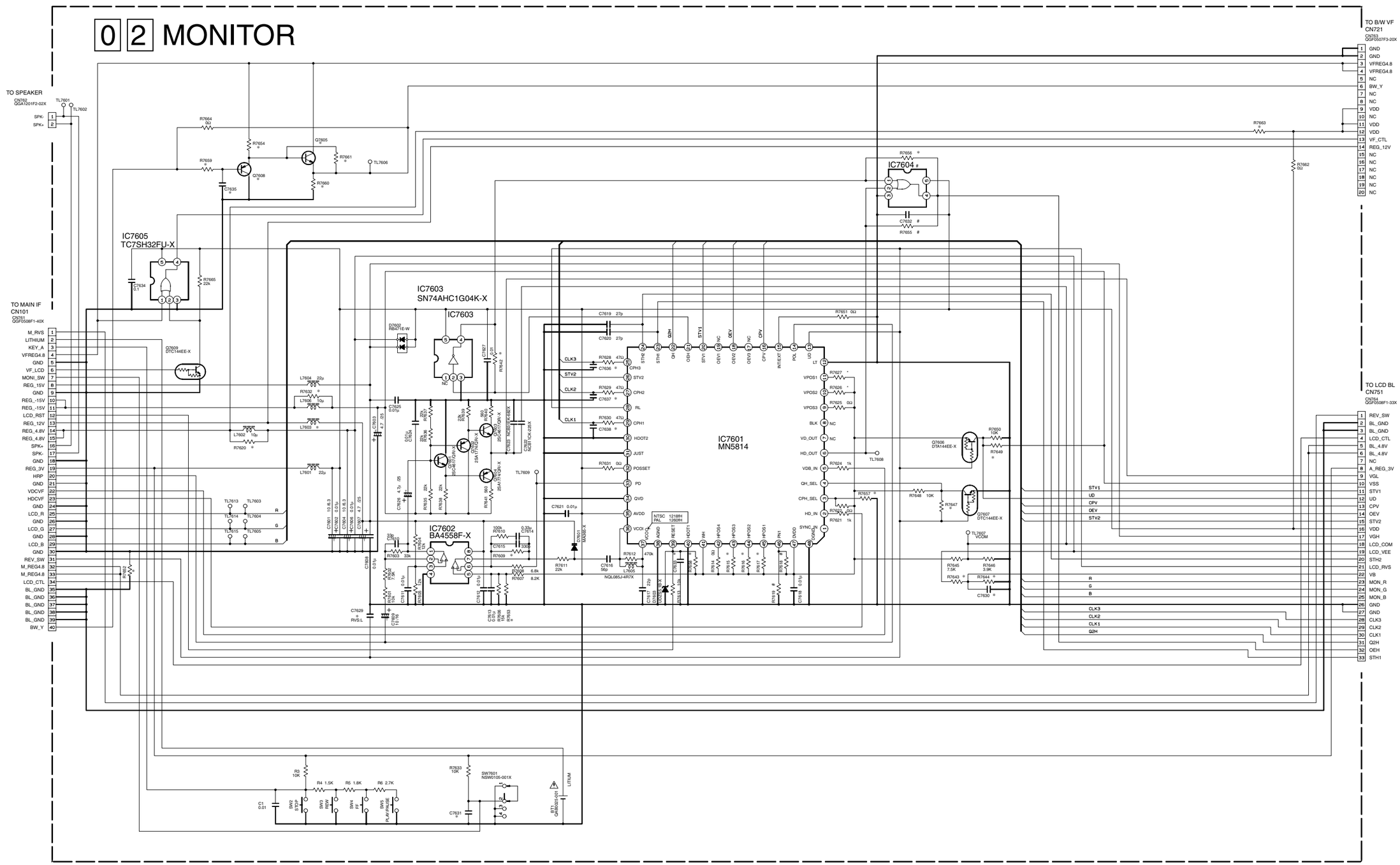
NOTES :
- *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
- *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

01 MAIN (REG)



4.15 MONITOR SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



NOTE : The parts with marked (*) is not used.

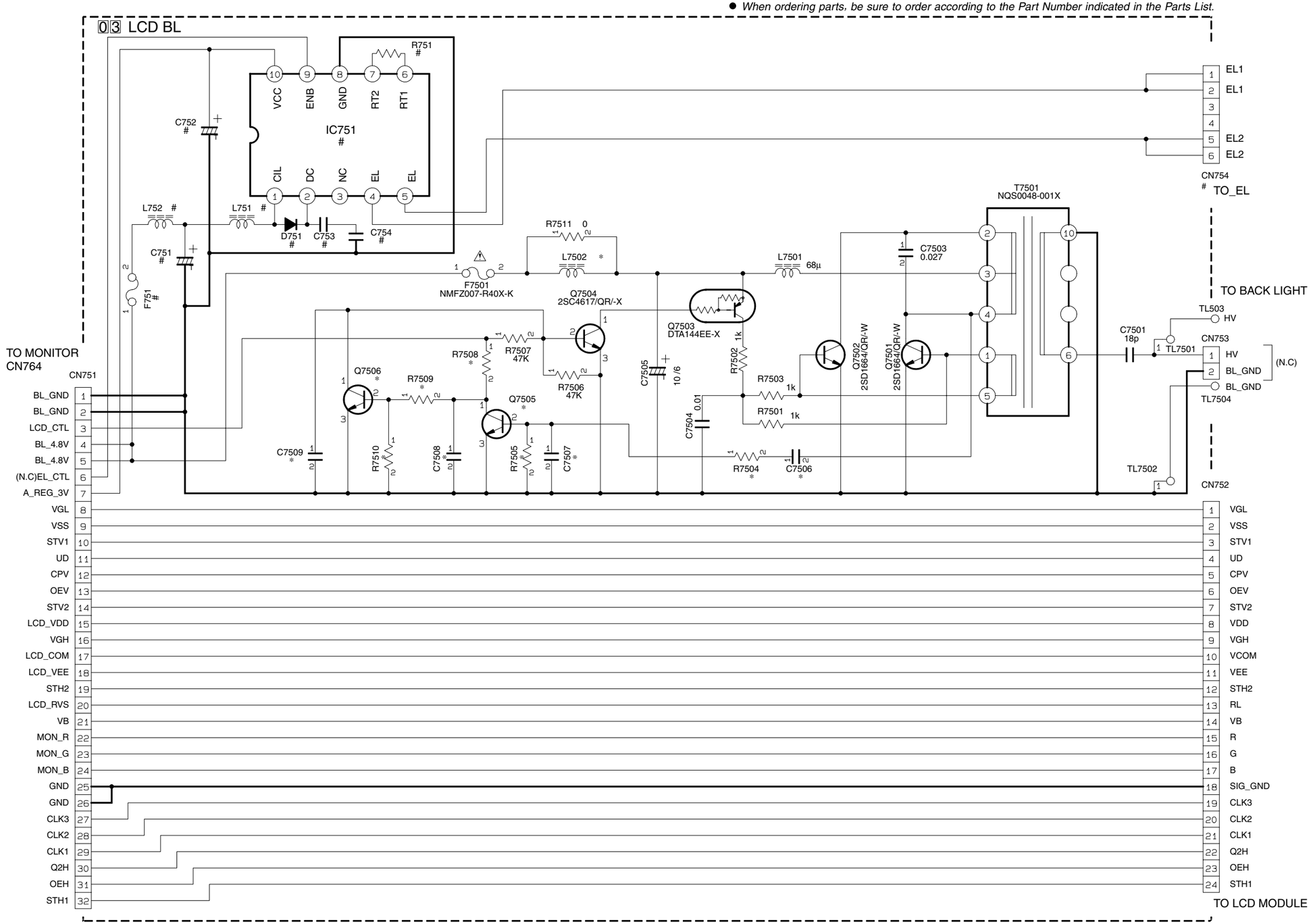
y10272001a_rev0

: Exchange Parts List

	R7618	R7619	R7655	IC7604	C7632
NTSC	*	0	0	*	*
PAL	0	*	*	TC7SH32FU-X	0.1

4.16 LCD BL SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



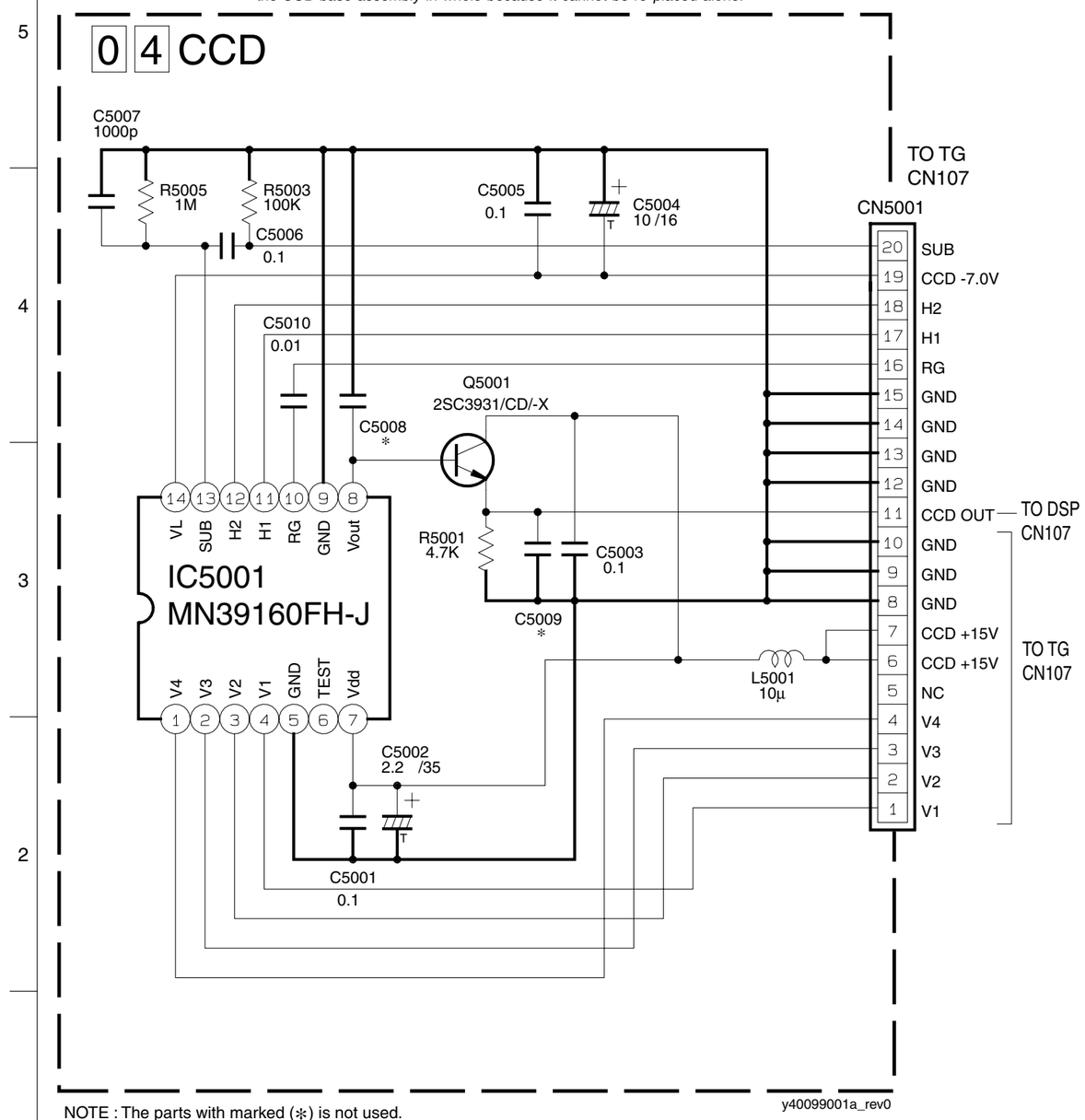
NOTE : The parts with marked (*) is not used.

Exchange Prats List

	IC751	D751	L751	L752	R751	C751	C752	C753	C754	CN754	F751
With EL MODEL	MIP805-X	1SS376-X	680	10	100K	10/6	10/6	2200p	2200p	QGF0505F2-06X	NMFZ007-R40X-K
Without EL MODEL	*	*	*	*	*	*	*	*	*	*	*

4.17 CCD SCHEMATIC DIAGRAM

NOTES :
- *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
- *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*
- *IC5001 is incorporated in the CCD base assembly. When IC5001 needs replacement, replace the CCD base assembly in whole because it cannot be re-placed alone.*

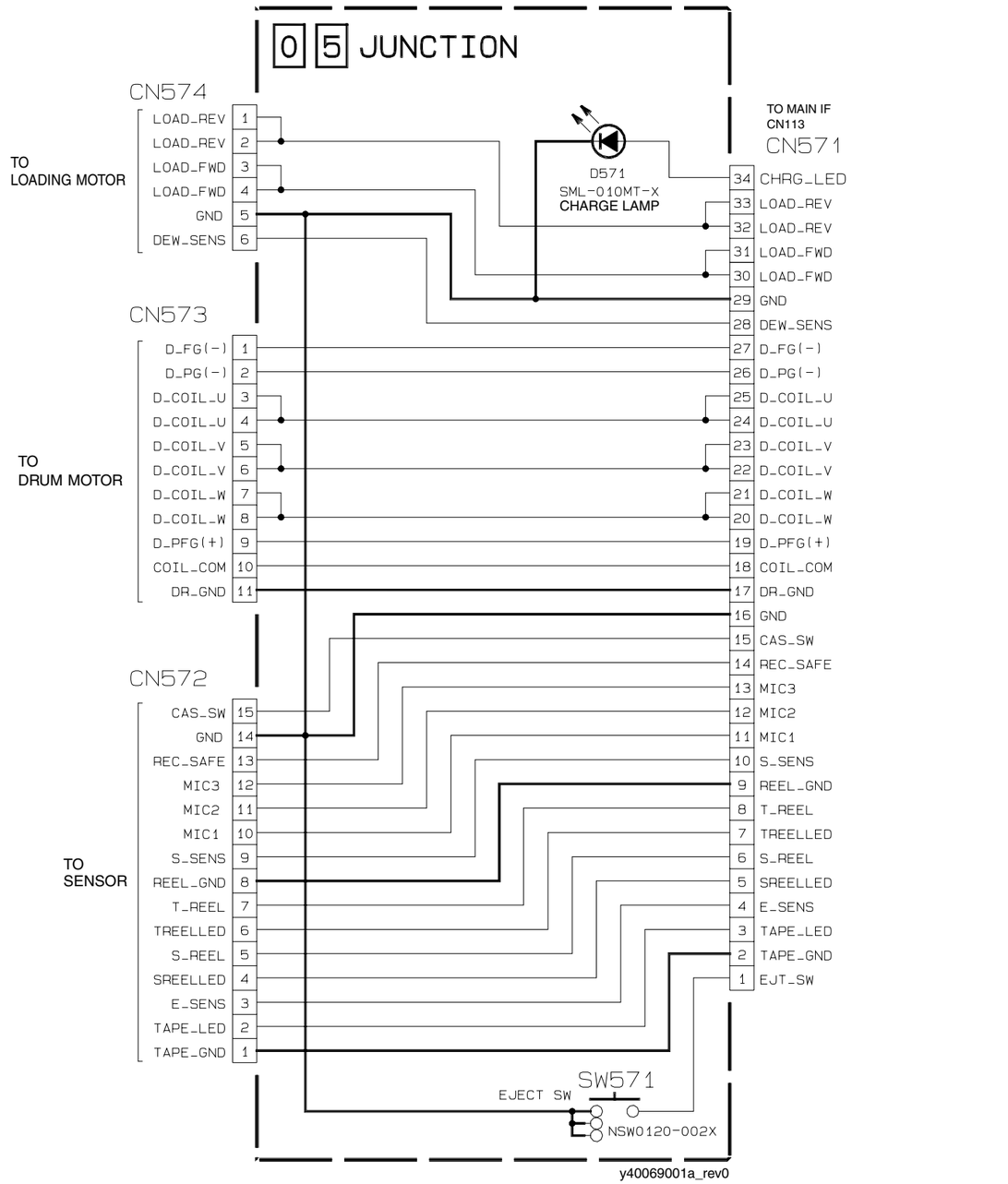


NOTE : The parts with marked (*) is not used.

y40099001a_rev0

4.18 JUNCTION SCHEMATIC DIAGRAM

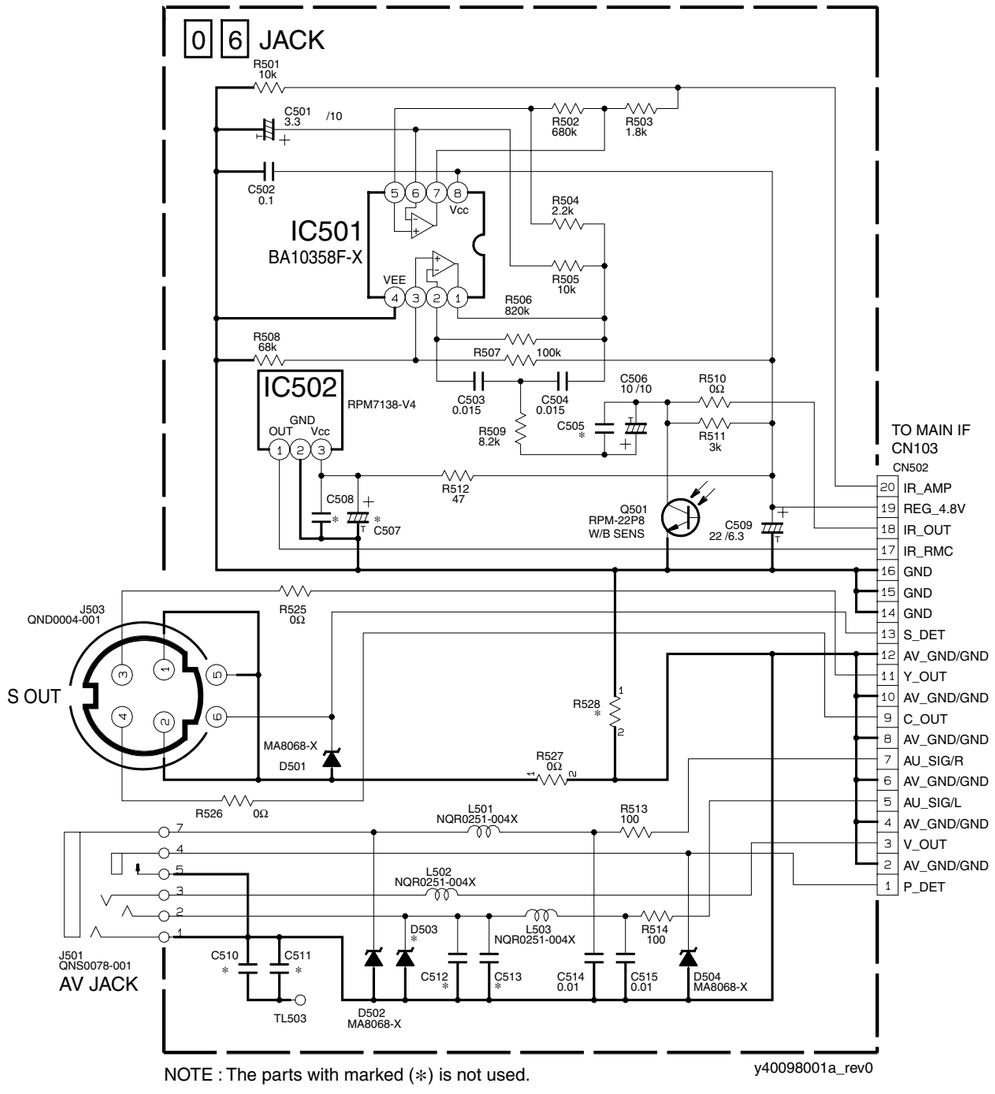
NOTES :
- *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
- *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



y40069001a_rev0

4.19 JACK SCHEMATIC DIAGRAM

NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*

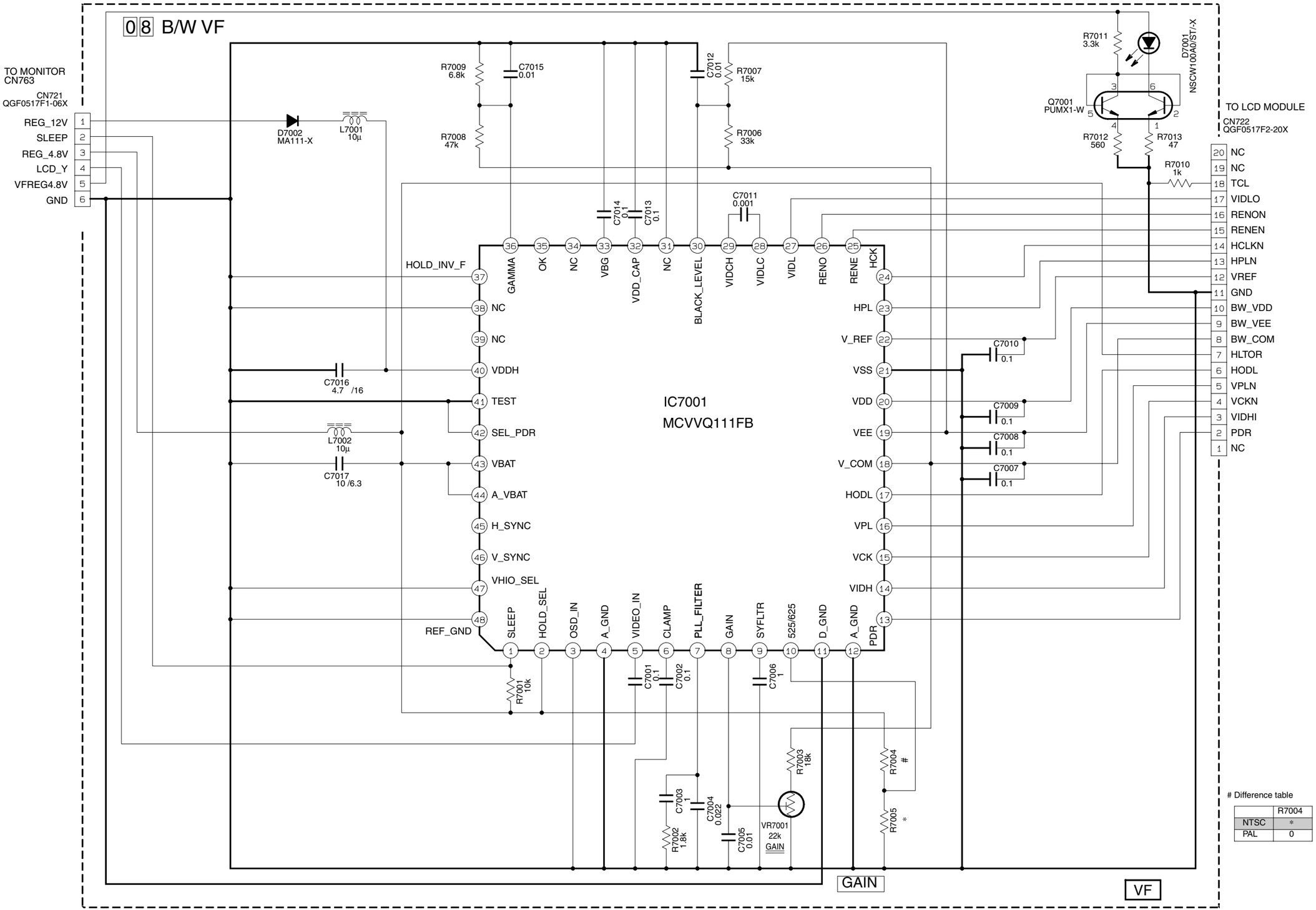


NOTE : The parts with marked (*) is not used.

y40098001a_rev0

4.20 B/W VF SCHEMATIC DIAGRAM

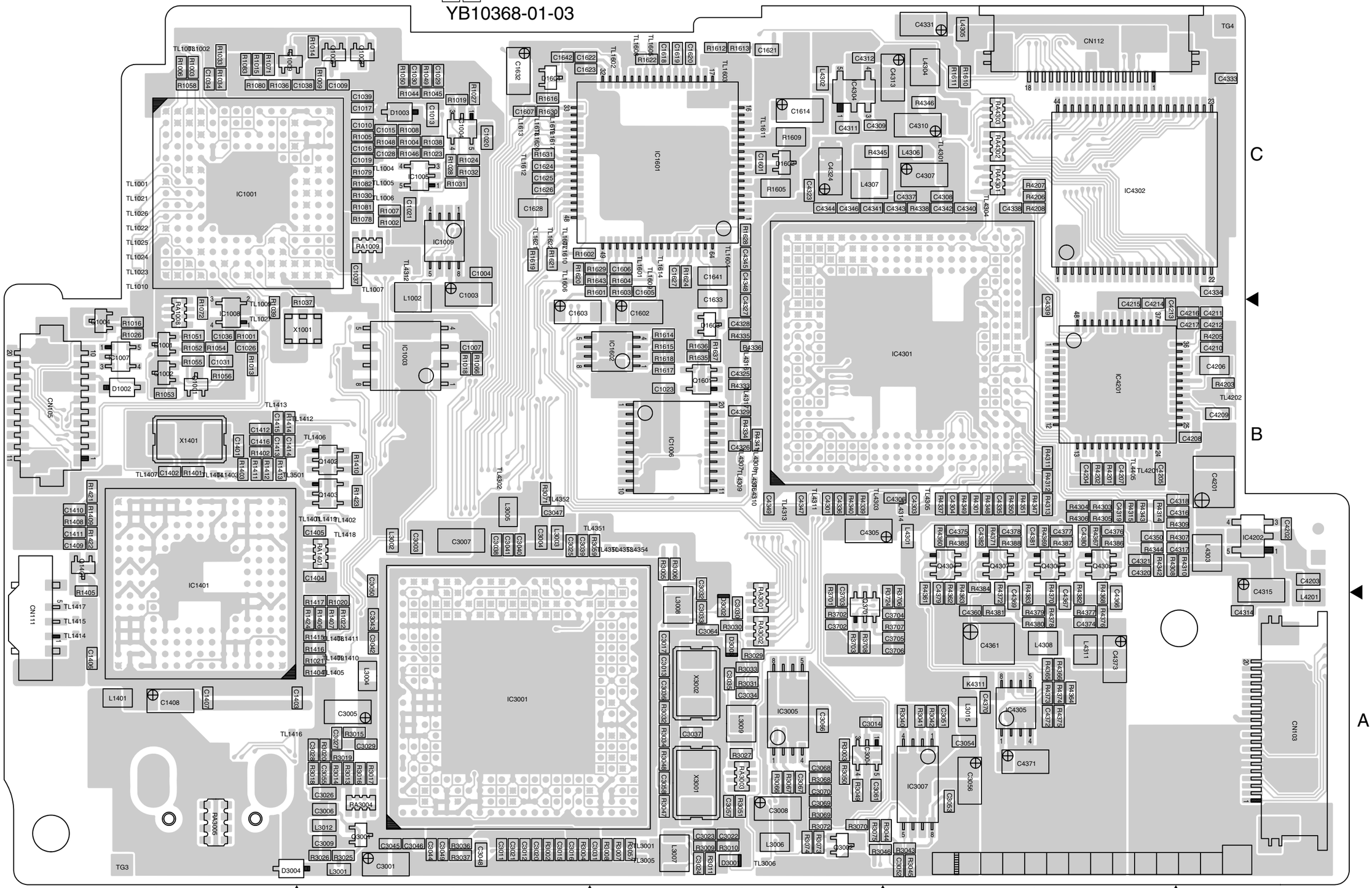
NOTES : ● *For the destination of each signal and further line connections that are cut off from this diagram, refer to "4.1 BOARD INTERCONNECTIONS".*
● *When ordering parts, be sure to order according to the Part Number indicated in the Parts List.*



4.21 MAIN CIRCUIT BOARD

FOIL SIDE (B)

0 1 MAIN PWB
YB10368-01-03



COMPONENT PARTS LOCATION GUIDE <MAIN/YB10368-01-03> (1/2)

CAPACITOR

REF.NO.	LOCATION
C1003	B C 2C
C1004	B C 2C
C1006	A C 2C
C1007	B C 2B
C1009	B C 2C
C1010	B C 2C
C1013	B C 2C
C1015	B C 2C
C1016	B C 2C
C1017	B C 2C
C1019	B C 2C
C1020	B C 2C
C1021	B C 2C
C1023	B C 3B
C1026	B C 1B
C1028	B C 2C
C1029	B C 2C
C1030	B C 2C
C1031	B C 1B
C1034	B C 1C
C1036	B C 1B
C1037	B C 2C
C1038	B C 2C
C1039	B C 2C
C1401	B C 1B
C1402	B C 1B
C1403	B C 2A
C1404	B C 2B
C1405	B C 2B
C1406	B C 1A
C1407	B C 1A
C1408	B C 1A
C1409	B C 1B
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C1413	B C 1B
C1414	B C 1B
C1415	B C 1B
C1416	B C 1B
C1601	B C 3C
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C1603	B C 2B
C1605	B C 3C
C1606	B C 3C
C1607	B C 2C
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C1642	B C 2C
C1643	A C 3C
C1644	A C 3C
C1645	A C 3C
C2001	A C 4A
C2002	A C 4A
C2003	A C 4A
C2004	A C 4A
C2005	A C 5A
C2006	A C 4A
C2007	A C 4A
C2008	A C 4A
C2009	A C 4A
C2010	A C 4A
C2011	A C 4A
C2012	A C 3A
C2013	A C 4A
C2014	A C 4A
C2015	A C 4A
C2016	A C 4A
C2017	A C 4A
C2018	A C 4A
C2019	A C 4A
C2020	A C 4A
C2021	A C 4A
C2101	A C 5A
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C2103	A C 5A
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C2124	A C 5A
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C2201	A C 5A
C2202	A C 5A
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C6134	A C 2B
C6201	A C 1B
C6202	A C 2B
C6203	A C 1C
C6204	A C 1B
C6205	A C 1A
C6206	A C 1B
C6207	A C 1B
C6208	A C 1C
C6701	A C 2A
C6702	A C 2A

FUSE

REF.NO.	LOCATION
F6101	A C 1A

IC

REF.NO.	LOCATION
IC1001	B C 1C
IC1002	A C 2C
IC1003	B C 2B
IC1004	B C 2C
IC1005	B C 2C
IC1006	B C 3B
IC1007	B C 1B
IC1008	B C 1B
IC1009	B C 2C
IC1401	B C 1B
IC1601	B C 3C
IC1602	B C 3B
IC2001	A C 4A
IC3001	B C 2A
IC3004	B C 3A
IC3005	B C 3A
IC3007	B C 4A
IC3501	A C 2C
IC3502	A C 3C
IC3701	A C 3A
IC4201	B C 4B
IC4202	B C 5B
IC4301	B C 4B
IC4302	B C 4C
IC4304	B C 3C
IC4305	B C 4A
IC4601	A C 3B
IC4602	A C 3C
IC4901	A C 4C
IC5501	A C 4B
IC6001	A C 2A
IC6101	A C 2B

CONNECTOR

REF.NO.	LOCATION
CN101	A C 3A
CN103	B C 5A
CN104	A C 1A
CN105	B C 1B
CN106	A C 5A
CN107	A C 4B
CN108	A C 4C
CN109	A C 1C
CN110	A C 2C
CN111	B C 1A
CN112	B C 4C
CN113	A C 3C

DIODE

REF.NO.	LOCATION
D1001	B C 1B
D1002	B C 1B
D1003	B C 2C
D1602	B C 3C
D1603	B C 3B
D1604	B C 2C
D2001	A C 4A
D2002	A C 3A
D3001	B C 3A
D3002	B C 3A
D3003	B C 3A
D3004	B C 1A
D3701	A C 3A
D5501	A C 4B
D5502	A C 4B
D5503	A C 3B
D6002	A C 3B
D6201	A C 2B
D6202	A C 1B
D6203	A C 1C
D6204	A C 1B
D6205	A C 1A
D6206	A C 1B
D6207	A C 1B
D6208	A C 1C
D6701	A C 2A
D6702	A C 2A

COIL

REF.NO.	LOCATION
L1002	B C 2C
L1401	B C 1A
L2001	A C 4A
L2002	A C 4B
L2201	A C 5A
L2202	A C 5A
L2203	A C 5A
L3001	B C 2A
L3002	B C 2B
L3003	B C 2B
L3004	B C 2A
L3005	B C 2B
L3006	B C 3A
L3007	B C 3A
L3008	B C 3A
L3009	B C 3A
L3012	B C 2A
L3015	B C 4A
L3501	A C 3C
L3502	A C 3B
L3503	A C 2B
L3504	A C 2C
L3505	A C 2C
L3701	A C 3A
L4201	B C 5A
L4301	B C 4B
L4302	B C 3C
L4303	B C 5B
L4304	B C 4C
L4305	B C 4C
L4306	B C 4C
L4307	B C 3C
L4308	B C 4A
L4311	B C 4A
L4601	A C 4B
L4901	A C 4C
L4902	A C 4B
L4903	A C 4C
L5501	A C 4B
L5502	A C 4B
L5503	A C 4B
L5504	A C 3B
L5505	A C 4B
L5506	A C 3B
L6101	A C 1B
L6102	A C 1A
L6201	A C 2B
L6202	A C 2B
L6203	A C 2C
L6204	A C 3A
L6206	A C 2B
L6207	A C 2A
L6208	A C 1B
L6701	A C 2A

TRANSISTOR

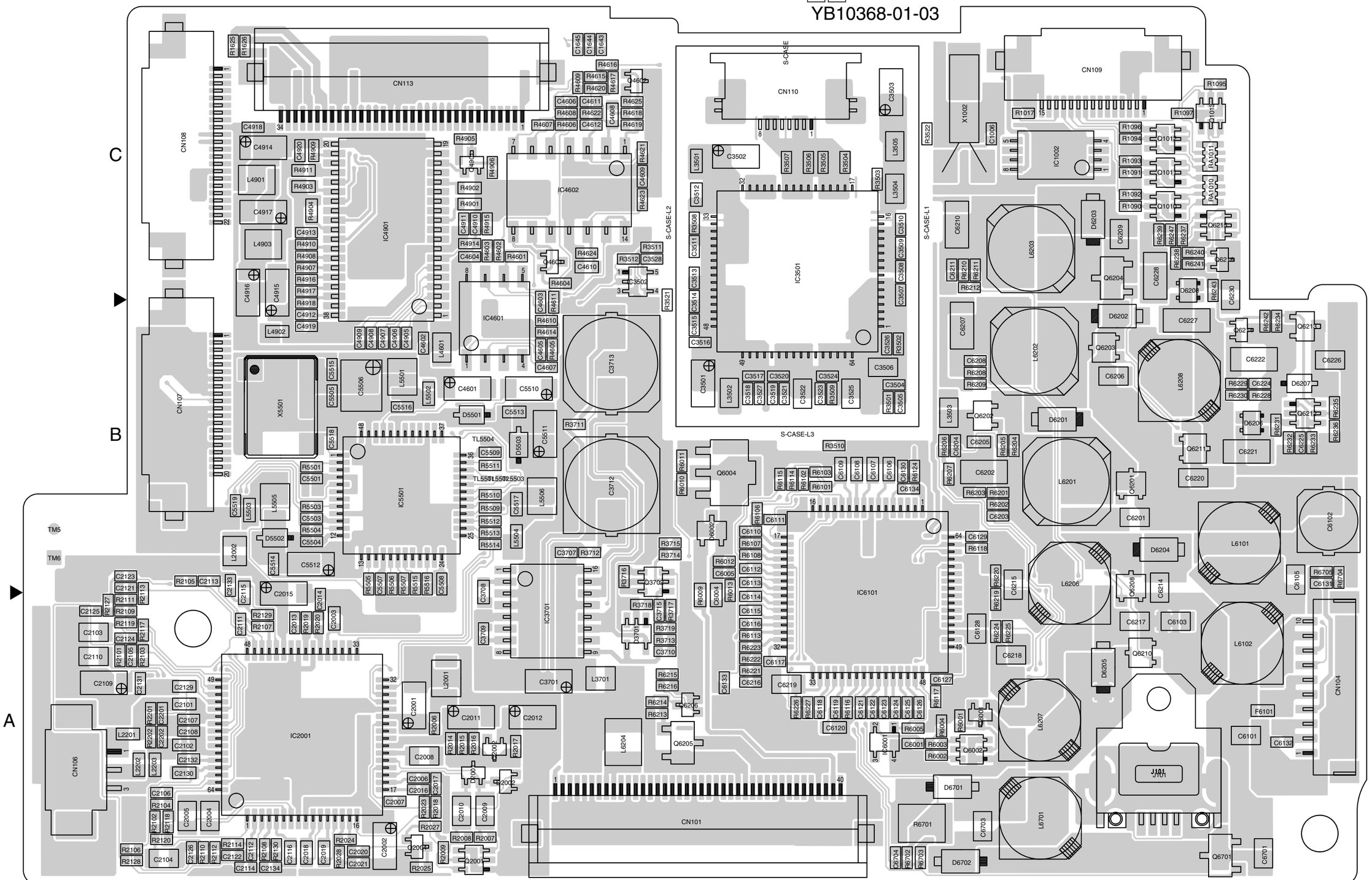
REF.NO.	LOCATION
Q1001	B C 1B
Q1002	B C 1B
Q1004	B C 1B
Q1005	B C 2C
Q1008	B C 2C
Q1009	B C 1C
Q1010	A C 1C
Q1011	A C 1C
Q1012	A C 1C
Q1013	A C 1C
Q1401	B C 1B
Q1402	B C 2B
Q1403	B C 2B
Q1601	B C 3B
Q2001	A C 4A
Q2002	A C 3A
Q2004	A C 4A
Q3001	B C 2A
Q3002	B C 3A
Q3701	B C 3A

COMPONENT PARTS LOCATION GUIDE <MAIN/YB10368-01-03> (2/2)

REF.NO.	LOCATION			REF.NO.	LOCATION			REF.NO.	LOCATION			REF.NO.	LOCATION			REF.NO.	LOCATION			REF.NO.	LOCATION		
Q3702	A	C	3B	R1082	B	C	2C	R2105	A	C	5B	R3509	A	C	2B	R4379	B	C	4A	R6115	A	C	3B	TL1024	B	C	1C
Q4304	B	C	4B	R1083	B	C	1C	R2106	A	C	5A	R3510	A	C	2B	R4380	B	C	4A	R6116	A	C	2A	TL1025	B	C	1C
Q4305	B	C	4B	R1090	A	C	1C	R2107	A	C	4A	R3511	A	C	3C	R4381	B	C	4A	R6117	A	C	2A	TL1026	B	C	1C
Q4306	B	C	4B	R1091	A	C	1C	R2108	A	C	4A	R3512	A	C	3C	R4382	B	C	4A	R6118	A	C	2B	TL1027	B	C	1B
Q4307	B	C	4B	R1092	A	C	1C	R2109	A	C	5A	R3521	A	C	3B	R4383	B	C	4A	R6124	A	C	2B	TL1401	B	C	2B
Q4601	A	C	3C	R1093	A	C	1C	R2110	A	C	4A	R3522	A	C	2C	R4384	B	C	4B	R6201	A	C	2B	TL1402	B	C	2B
Q4602	A	C	3C	R1094	A	C	1C	R2111	A	C	5A	R3701	B	C	3A	R4385	B	C	4B	R6202	A	C	2B	TL1403	B	C	1B
Q4901	A	C	4C	R1095	A	C	1C	R2112	A	C	4A	R3702	B	C	3A	R4386	B	C	4B	R6203	A	C	2B	TL1404	B	C	1B
Q6001	A	C	2A	R1096	A	C	1C	R2113	A	C	5A	R3703	B	C	3A	R4387	B	C	4B	R6204	A	C	2B	TL1405	B	C	2A
Q6002	A	C	2A	R1097	A	C	1C	R2114	A	C	4A	R3706	B	C	4A	R4388	B	C	4B	R6205	A	C	2B	TL1406	B	C	2B
Q6004	A	C	3B	R1401	B	C	1B	R2117	A	C	5A	R3707	B	C	4A	R4601	A	C	3C	R6206	A	C	2B	TL1407	B	C	1B
Q6201	A	C	1B	R1402	B	C	1B	R2118	A	C	5A	R3708	B	C	3A	R4602	A	C	3C	R6207	A	C	2B	TL1408	B	C	2A
Q6202	A	C	2B	R1403	B	C	1B	R2119	A	C	5A	R3711	A	C	3B	R4603	A	C	4C	R6208	A	C	2B	TL1409	B	C	2A
Q6203	A	C	1B	R1404	B	C	2A	R2120	A	C	5A	R3712	A	C	3B	R4604	A	C	3C	R6209	A	C	2B	TL1410	B	C	2A
Q6204	A	C	1C	R1405	B	C	1B	R2127	A	C	5A	R3713	A	C	3A	R4605	A	C	3B	R6210	A	C	2C	TL1411	B	C	2A
Q6205	A	C	3A	R1406	B	C	2A	R2128	A	C	5A	R3714	A	C	3B	R4606	A	C	3C	R6211	A	C	2C	TL1412	B	C	2B
Q6206	A	C	3A	R1407	B	C	2A	R2129	A	C	4A	R3715	A	C	3B	R4607	A	C	3C	R6212	A	C	2C	TL1413	B	C	1B
Q6208	A	C	1B	R1408	B	C	1B	R2130	A	C	4A	R3716	A	C	3B	R4608	A	C	3C	R6213	A	C	3A	TL1414	B	C	1A
Q6210	A	C	1A	R1409	B	C	1B	R2201	A	C	5A	R3717	A	C	3A	R4609	A	C	3C	R6214	A	C	3A	TL1415	B	C	1A
Q6211	A	C	1B	R1410	B	C	2B	R2202	A	C	5A	R3718	A	C	3A	R4610	A	C	3B	R6215	A	C	3A	TL1416	B	C	1A
Q6212	A	C	1B	R1411	B	C	1B	R3002	B	C	2A	R3719	A	C	3A	R4611	A	C	3B	R6216	A	C	3A	TL1417	B	C	1A
Q6213	A	C	1B	R1412	B	C	1B	R3003	B	C	3A	R3724	B	C	4A	R4614	A	C	3B	R6219	A	C	2A	TL1418	B	C	2B
Q6214	A	C	1B	R1413	B	C	1B	R3004	B	C	2A	R4201	B	C	4B	R4615	A	C	3C	R6220	A	C	2B	TL1419	B	C	2B
Q6215	A	C	1C	R1414	B	C	1B	R3005	B	C	3B	R4202	B	C	4B	R4616	A	C	3C	R6221	A	C	3A	TL1601	B	C	3C
Q6216	A	C	1C	R1415	B	C	2A	R3006	B	C	3B	R4203	B	C	5B	R4617	A	C	3C	R6222	A	C	3A	TL1602	B	C	3C
Q6701	A	C	1A	R1416	B	C	2A	R3007	B	C	3A	R4205	B	C	5B	R4618	A	C	3C	R6223	A	C	3A	TL1603	B	C	3C
RESISTOR				R1417	B	C	2A	R3008	B	C	3A	R4206	B	C	4C	R4619	A	C	3C	R6224	A	C	2A	TL1604	B	C	3C
R1001	B	C	1B	R1421	B	C	1B	R3009	B	C	3A	R4207	B	C	4C	R4620	A	C	3C	R6225	A	C	2A	TL1605	B	C	3C
R1002	B	C	2C	R1422	B	C	1B	R3010	B	C	3A	R4208	B	C	4C	R4621	A	C	3C	R6226	A	C	2A	TL1606	B	C	2C
R1003	B	C	1C	R1423	B	C	2B	R3011	B	C	3A	R4301	B	C	4B	R4622	A	C	3C	R6227	A	C	2A	TL1607	B	C	2C
R1004	B	C	2C	R1424	B	C	2A	R3013	B	C	2A	R4303	B	C	4B	R4623	A	C	3C	R6228	A	C	1B	TL1608	B	C	3C
R1005	B	C	2C	R1601	B	C	3C	R3014	B	C	2A	R4304	B	C	4B	R4624	A	C	3C	R6229	A	C	1B	TL1609	B	C	3C
R1006	B	C	1C	R1602	B	C	2C	R3015	B	C	2A	R4305	B	C	4B	R4625	A	C	3C	R6230	A	C	1B	TL1610	B	C	2C
R1007	B	C	2C	R1603	B	C	3C	R3016	B	C	2A	R4306	B	C	4B	R4901	A	C	4C	R6231	A	C	1B	TL1611	B	C	3C
R1008	B	C	2C	R1604	B	C	3C	R3017	B	C	2A	R4307	B	C	5B	R4902	A	C	4C	R6232	A	C	1B	TL1612	B	C	2C
R1009	B	C	2C	R1605	B	C	3C	R3018	B	C	2A	R4308	B	C	4B	R4903	A	C	4C	R6233	A	C	1B	TL1613	B	C	2C
R1013	B	C	1B	R1609	B	C	3C	R3019	B	C	2A	R4309	B	C	5B	R4904	A	C	4C	R6234	A	C	1B	TL1614	B	C	3C
R1014	B	C	2C	R1610	B	C	4C	R3020	B	C	2A	R4310	B	C	5B	R4905	A	C	4C	R6235	A	C	1B	TL1617	B	C	2C
R1015	B	C	1C	R1611	B	C	4C	R3025	B	C	2A	R4311	B	C	4B	R4906	A	C	3C	R6236	A	C	1B	TL1618	B	C	2C
R1016	B	C	1B	R1612	B	C	3C	R3026	B	C	2A	R4312	B	C	4B	R4907	A	C	4C	R6237	A	C	1C	TL1619	B	C	2C
R1017	A	C	2C	R1613	B	C	3C	R3027	B	C	3A	R4313	B	C	4B	R4908	A	C	4C	R6238	A	C	1C	TL1620	B	C	2C
R1018	B	C	2B	R1614	B	C	3B	R3029	B	C	3A	R4314	B	C	4B	R4909	A	C	4C	R6239	A	C	1C	TL1621	B	C	2C
R1019	B	C	2C	R1615	B	C	3B	R3030	B	C	3A	R4315	B	C	4B	R4910	A	C	4C	R6240	A	C	1C	TL1622	B	C	2C
R1020	B	C	2A	R1616	B	C	2C	R3031	B	C	3A	R4333	B	C	3B	R4911	A	C	4C	R6241	A	C	1C	TL3001	B	C	3A
R1021	B	C	2A	R1617	B	C	3B	R3032	B	C	3A	R4334	B	C	3B	R4914	A	C	4C	R6242	A	C	1B	TL3005	B	C	3A
R1022	B	C	2A	R1618	B	C	3B	R3033	B	C	3A	R4335	B	C	3B	R4915	A	C	4C	R6243	A	C	1C	TL3006	B	C	3A
R1023	B	C	2C	R1619	B	C	2C	R3034	B	C	3A	R4336	B	C	3B	R4916	A	C	4C	R6247	A	C	1C	TL3501	B	C	1B
R1024	B	C	2C	R1620	B	C	2C	R3036	B	C	2A	R4337	B	C	4B	R4917	A	C	4C	R6701	A	C	2A	TL4201	B	C	4B
R1026	B	C	1B	R1621	B	C	2C	R3037	B	C	2A	R4338	B	C	4C	R4918	A	C	4B	R6702	A	C	2A	TL4202	B	C	5B
R1027	B	C	2C	R1622	B	C	3C	R3040	B	C	4A	R4339	B	C	3B	R5501	A	C	4B	R6703	A	C	2A	TL4301	B	C	4C
R1028	B	C	2C	R1624	B	C	3C	R3041	B	C	4A	R4340	B	C	3B	R5503	A	C	4B	R6704	A	C	1B	TL4302	B	C	2B
R1030	B	C	2C	R1625	A	C	4C	R3042	B	C	4A	R4341	B	C	3B	R5504	A	C	4B	R6705	A	C	1B	TL4303	B	C	3B
R1031	B	C	2C	R1626	A	C	4C	R3043	B	C	4A	R4342	B	C	4B	R5505	A	C	4B	RA1008	B	C	1B	TL4304	B	C	4C
R1032	B	C	2C	R1628	B	C	3C	R3044	B	C	4A	R4343	B	C	4B	R5506	A	C	4B	RA1009	B	C	2C	TL4305	B	C	4B
R1033	B	C	1C	R1629	B	C	3C	R3045	B	C	4A	R4344	B	C	4B	R5507	A	C	4B	RA1010	A	C	1C	TL4306	B	C	3B
R1034	B	C	1C	R1630	B	C	2C	R3046	B	C	3A	R4345	B	C	3C	R5509	A	C	3B	RA1011	A	C	1C	TL4307	B	C	3B
R1036	B	C	1C	R1631	B	C	2C	R3047	B	C	3A	R4346	B	C	4C	R5510	A	C	3B	RA1401	B	C	2B	TL4308	B	C	3B
R1037	B	C	2B	R1635	B	C	3B	R3048	B	C	3A	R4347	B	C	4B	R5511	A	C	3B	RA3001	B	C	3A	TL4309	B	C	3B
R1038	B	C	2C	R1636	B	C	3B	R3049	B	C	3A	R4348	B	C	4B	R5512	A	C	3B	RA3002	B	C	3A	TL4310	B	C	3B
R1039	B	C	1B	R1637	B	C	3B	R3050	B	C	3A	R4349	B	C	4B	R5513	A	C	3B	RA3003	B	C	3A	TL4311	B	C	3B
R1044	B	C	2C	R1643	B	C	3C	R3051	B	C	3A	R4350	B	C	4B	R5514	A	C	3B	RA3004	B	C	2A	TL4312	B	C	2C
R1045	B	C	2C	R2006	A	C	4A	R3057	B	C	3A	R4351	B	C	4B	R5515	A	C	4B	RA3005	B	C	1A	TL4313	B	C	3B
R1046	B	C	2C	R2007	A	C	4A	R3059	B	C	3B	R4360	B	C	4B	R5516	A	C	4B	RA4301	B	C	4C	TL4314	B	C	4B
R1048	B	C	2C	R2008	A	C	4A	R3066	B	C	3A	R4361	B	C	4A	R6001	A	C	2A	RA4302	B	C	4C	TL4316	B	C	3B
R1049	B	C	2C	R2009	A	C	4A	R3067	B	C	3A	R4362	B	C	4A	R6002	A	C	2A	RA4303	B	C	4C	TL4317	B	C	3B
R1050	B	C	2C	R2014	A	C	4A	R3068	B	C	3A	R4363	B	C	4A	R6003	A	C	2A	**OTHER**				TL4350	B	C	3B
R1051	B	C	1B	R2015	A	C	4A	R3069	B	C	3A	R4364	B	C	4A	R6004	A	C	2A	J101	A	D	1A	TL4351	B	C	3B
R1052	B	C	1B	R2016	A	C	4A	R3070	B	C	3A	R4365	B	C	4A	R6005	A	C	2A	K4311	B	C	4A	TL4352	B	C	2B
R1053	B	C	1B	R2017	A	C	3A	R3071	B	C	2B	R4366	B	C	4A	R6009	A	C	3A	TL1001	B	C	1C	TL4353	B	C	3B
R1054	B	C	1B	R2018	A	C	4A	R3072	B	C	3A	R4367	B	C	4B	R6010	A	C	3B	TL1002	B	C	1C	TL4354	B	C	3B
R1055	B	C	1B	R2019	A	C	4A	R3073	B	C	3A	R4368	B	C	4A	R6011	A	C	3B	TL1003	B	C	1C	TL4405	B	C	4B
R1056	B	C	1B	R2020	A	C	4A	R3074	B	C	3A	R4369	B	C	4B	R6012	A	C	3B	TL1004	B	C	2C	TL5501	A	C	4B
R1058	B	C	1C	R2023	A	C	4A	R3075	B	C	3A	R4370	B	C	4A	R6013	A	C	3B	TL1005	B	C	2C	TL5502	A	C	3B
R1066	B	C	2B	R2024	A	C	4A	R3501	A	C	2B	R4371	B	C	4B	R6101	A	C	2B	TL1006	B	C	2C	TL5503	A	C	3B
R1071	B	C	1C	R2025	A	C	4A	R3502	A	C	2B	R4372	B	C	4A	R6102	A	C	2B	TL1007	B	C	2C	TL5504	A	C	4B
R1072	B	C	1B	R2027	A	C	4A	R3503	A	C	2C	R4373	B	C	4A	R6103	A	C	2B	TL1009	B	C	1B	X1001	B	C	2B
R1078	B	C	2C	R2028	A	C	4A	R3504	A	C	2C	R4374	B	C	4A	R6106	A	C	3B	TL1010	B	C	1C	X1002	A	C	2C
R1079	B	C	2C	R2101	A	C	5A	R3505	A	C	2C	R4375	B	C	4A	R6107	A	C	3B	TL1021	B	C	1C	X1401	B	C	1B
R1080	B	C	1C	R2102	A	C	5A	R3506	A	C	2C	R4376	B	C	4A	R6108	A	C	3B	TL1022	B	C	1C	X3001	B	C	3A
R1081	B	C	2C	R2103	A	C	5A	R3507	A	C	2C	R4377	B	C	4A	R6113	A	C	3A	TL1023	B	C	1C	X3002	B	C	3A
				R2104	A	C	5A	R3508	A	C	3C	R4378	B	C	4A	R6114	A	C	2B					X5501	A	C	4B

COMPONENT SIDE (A)

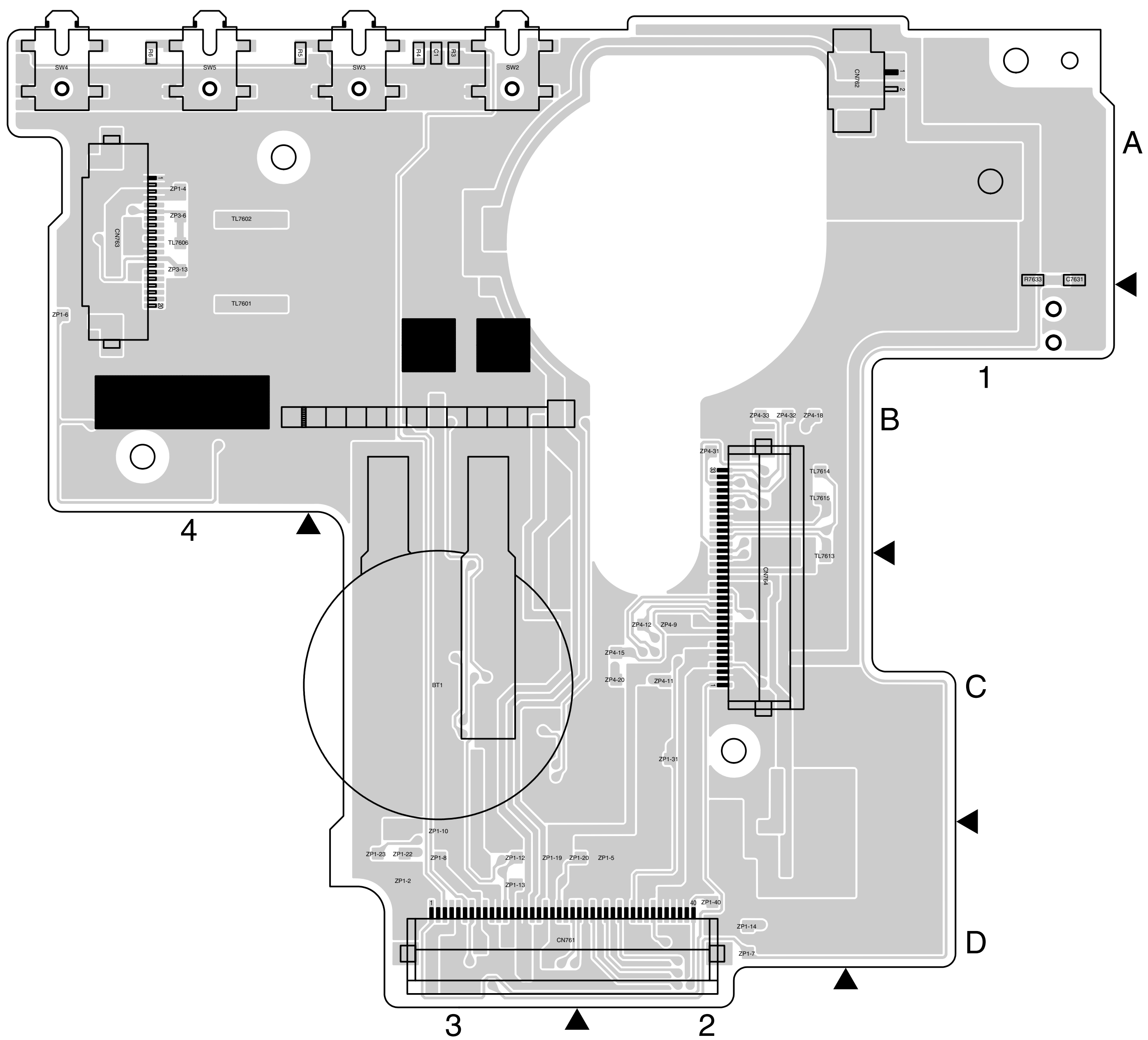
0 1 MAIN PWB
YB10368-01-03



4.22 MONITOR CIRCUIT BOARD

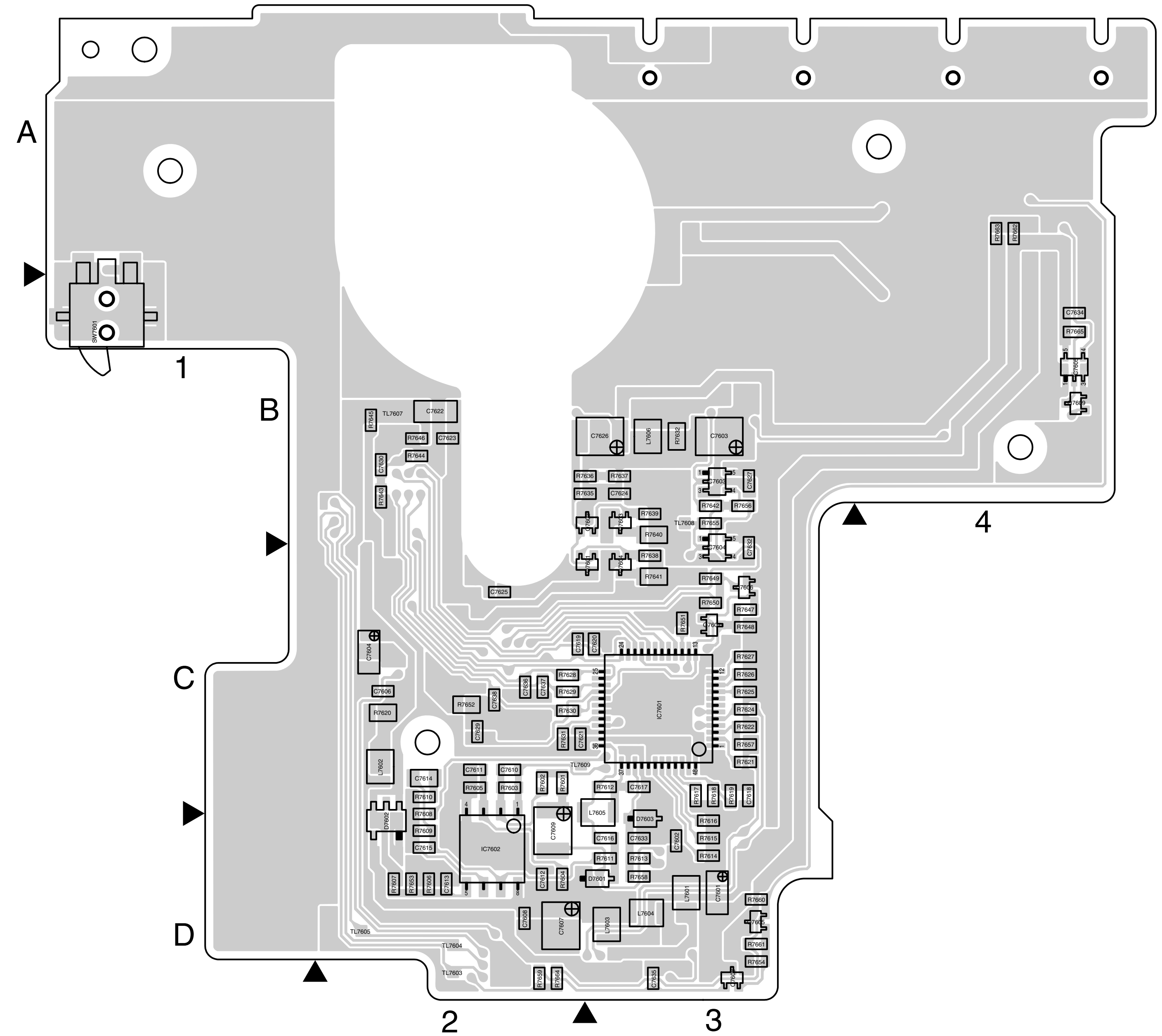
FOIL SIDE (B)

0 2 MONITOR PWB
YB10369-01-01



COMPONENT SIDE (A)

0 2 MONITOR PWB
YB10369-01-01

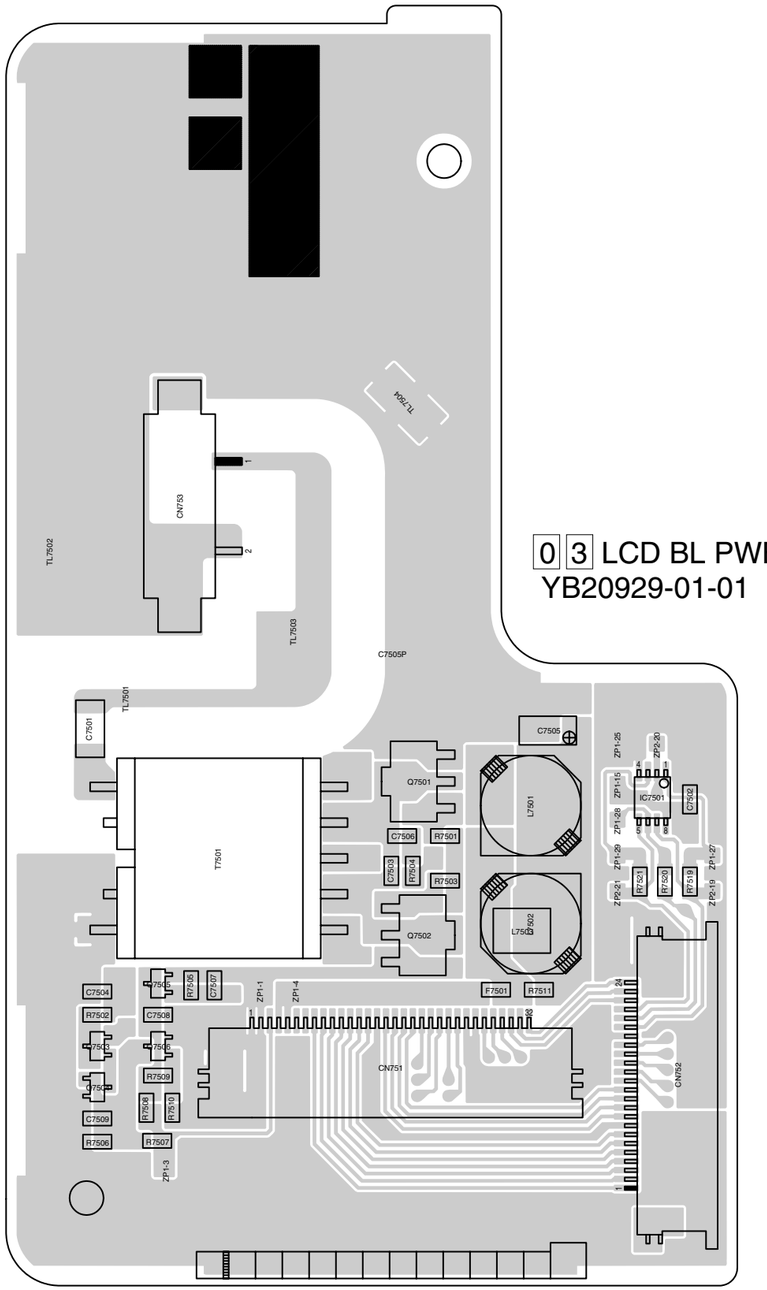


COMPONENT PARTS LOCATION GUIDE <MONITOR/YB10369-01-01>

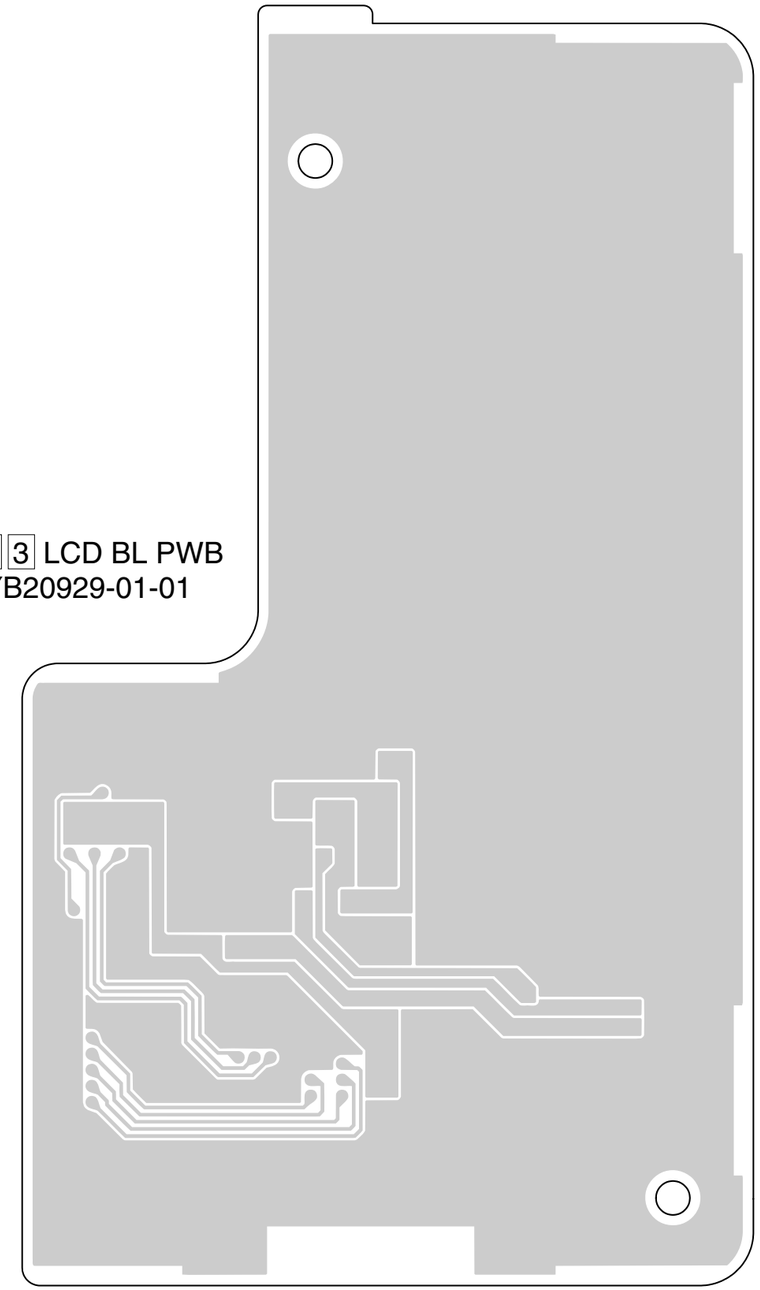
REF.NO.	LOCATION		
CAPACITOR			
C1	B	C	3A
C7601	A	C	3D
C7602	A	C	3D
C7603	A	C	3B
C7604	A	C	2C
C7606	A	C	2C
C7607	A	C	2D
C7608	A	C	2D
C7609	A	C	2D
C7610	A	C	2C
C7611	A	C	2C
C7612	A	C	2D
C7613	A	C	2D
C7614	A	C	2C
C7615	A	C	2D
C7616	A	C	3D
C7617	A	C	3C
C7618	A	C	3C
C7619	A	C	2C
C7620	A	C	3C
C7621	A	C	2C
C7622	A	C	2B
C7623	A	C	2B
C7624	A	C	3B
C7625	A	C	2C
C7626	A	C	3B
C7627	A	C	3B
C7629	A	C	2C
C7630	A	C	2B
C7631	B	C	1A
C7632	A	C	3B
C7633	A	C	3D
C7634	A	C	4B
C7635	A	C	3D
C7636	A	C	2C
C7637	A	C	2C
C7638	A	C	2C
CONNECTOR			
CN761	B	C	3D
CN762	B	C	1A
CN763	B	C	4A
CN764	B	C	2C
DIODE			
D7601	A	C	3D
D7602	A	C	2C
D7603	A	C	3C
IC			
IC7601	A	C	3C
IC7602	A	C	2D
IC7603	A	C	3B
IC7604	A	C	3C
IC7605	A	C	3B
COIL			
L7601	A	C	3D
L7602	A	C	2C
L7603	A	C	2D
L7604	A	C	3D
L7605	A	C	2D
L7606	A	C	3B
TRANSISTOR			
Q7601	A	C	3C
Q7602	A	C	3B
Q7603	A	C	3B
Q7604	A	C	3C
Q7605	A	C	3D
Q7606	A	C	3C
Q7607	A	C	3C
Q7608	A	C	3D
Q7609	A	C	4B
RESISTOR			
R3	B	C	3A
R4	B	C	3A
R5	B	C	4A
R6	B	C	4A
R7601	A	C	2C
R7602	A	C	2C
R7603	A	C	2C
R7604	A	C	2D
R7605	A	C	2C
R7606	A	C	2D
R7607	A	C	2D
R7608	A	C	2C
R7609	A	C	2D
R7610	A	C	2C
R7611	A	C	3D
R7612	A	C	3C
R7613	A	C	3D
R7614	A	C	3D
R7615	A	C	3D
R7616	A	C	3C
R7617	A	C	3C
R7618	A	C	3C
R7619	A	C	3C
R7620	A	C	2C
R7621	A	C	3C
R7622	A	C	3C
R7624	A	C	3C
R7625	A	C	3C
R7626	A	C	3C
R7627	A	C	3C
R7628	A	C	2C
R7629	A	C	2C
R7630	A	C	2C
R7631	A	C	2C
R7632	A	C	3B
R7633	B	C	1A
R7635	A	C	3B
R7636	A	C	3B
R7637	A	C	3B
R7638	A	C	3C
R7639	A	C	3B
R7640	A	C	3B
R7641	A	C	3C
R7642	A	C	3B
R7643	A	C	2B
R7644	A	C	2B
R7645	A	C	2B
R7646	A	C	2B
R7647	A	C	3C
R7648	A	C	3C
R7649	A	C	3C
R7650	A	C	3C
R7651	A	C	3C
R7652	A	C	2C
R7653	A	C	2D
R7654	A	C	3D
R7655	A	C	3B
R7656	A	C	3B
R7657	A	C	3B
R7658	A	C	3D
R7659	A	C	2D
R7660	A	C	3D
R7661	A	C	3D
R7662	A	C	4A
R7663	A	C	4A
R7664	A	C	2D
R7665	A	C	4B
OTHER			
BT1	B	C	3C
SW2	B	C	3A
SW3	B	C	3A
SW4	B	C	4A
SW5	B	C	4A
SW7601	A	C	1B
TL7601	B	C	4B
TL7602	B	C	4A
TL7603	A	C	2D
TL7604	A	C	2D
TL7605	A	C	2D
TL7606	B	C	4B
TL7607	A	C	2B
TL7608	A	C	3C
TL7609	A	C	2C
TL7613	B	C	1C
TL7614	B	C	1B
TL7615	B	C	1B
ZP1-2	B	C	3D
ZP1-4	B	C	4A
ZP1-5	B	C	2D
ZP1-6	B	C	4B
ZP1-7	B	C	2D
ZP1-8	B	C	3D
ZP3-6	B	C	4A
ZP4-9	B	C	2C
ZP1-10	B	C	3D
ZP1-12	B	C	3D
ZP1-13	B	C	3D
ZP1-14	B	C	2D
ZP1-19	B	C	2D
ZP1-20	B	C	2D
ZP1-22	B	C	3D
ZP1-23	B	C	3D
ZP1-31	B	C	2C
ZP1-40	B	C	2D
ZP3-13	B	C	4B
ZP4-11	B	C	2C
ZP4-12	B	C	2C
ZP4-15	B	C	2C
ZP4-18	B	C	1B
ZP4-20	B	C	2C
ZP4-31	B	C	2B
ZP4-32	B	C	2B
ZP4-33	B	C	2B

4.23 LCD BL CIRCUIT BOARD

FOIL SIDE (B)



COMPONENT SIDE (A)

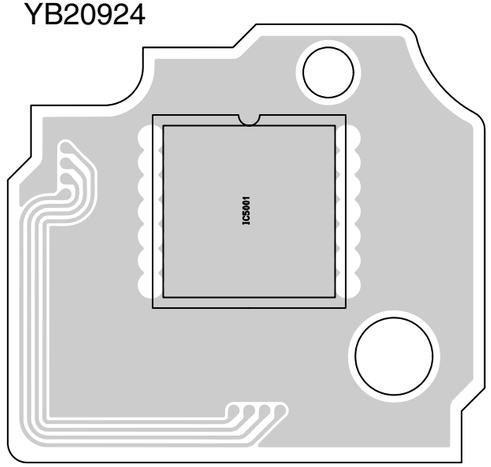


4.24 CCD, VF AND JUNCTION CIRCUIT BOARDS

- CCD -

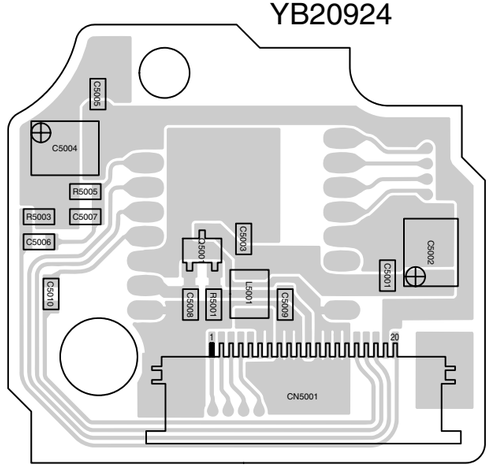
FOIL SIDE (B)

04 CCD PWB
YB20924



COMPONENT SIDE (A)

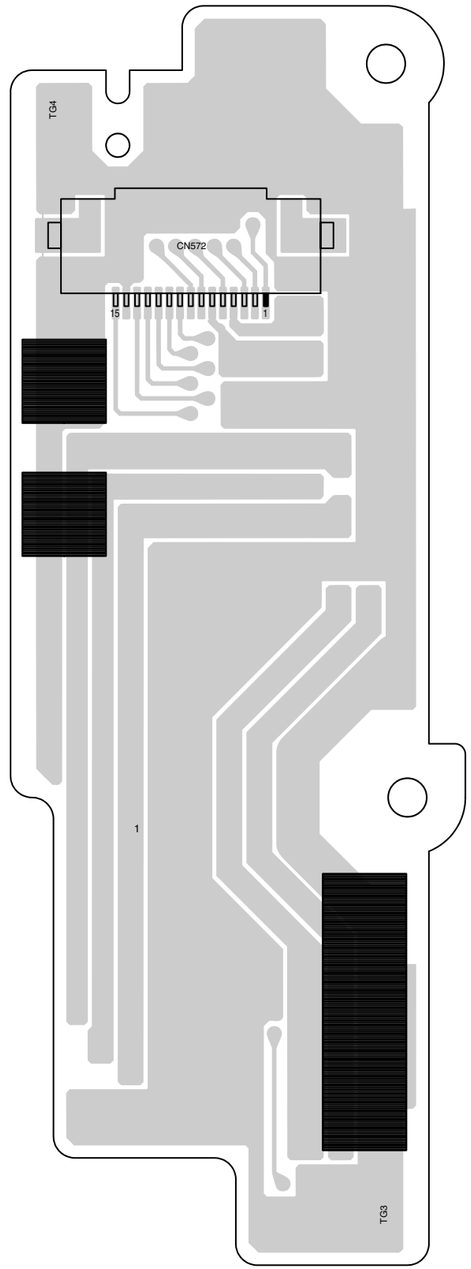
04 CCD PWB
YB20924



- JUNCTION -

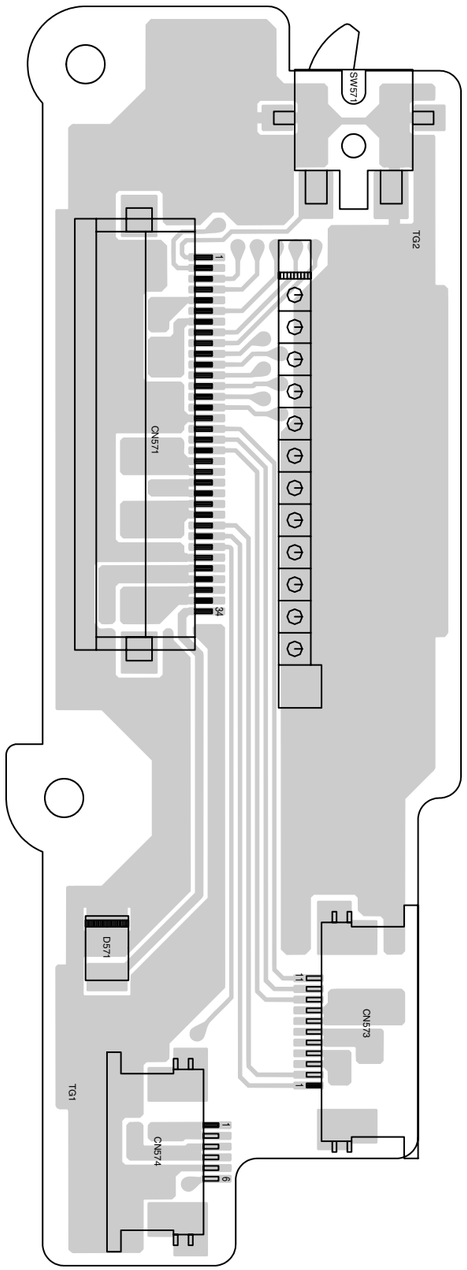
FOIL SIDE (B)

05 JUNCTION PWB
YB20925-01-01



COMPONENT SIDE (A)

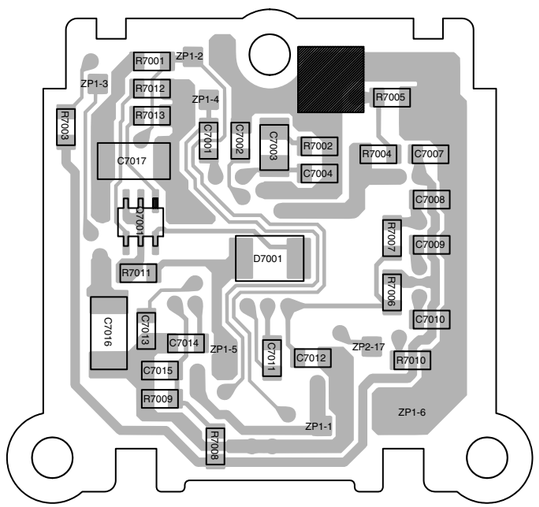
05 JUNCTION PWB
YB20925-01-01



- VF -

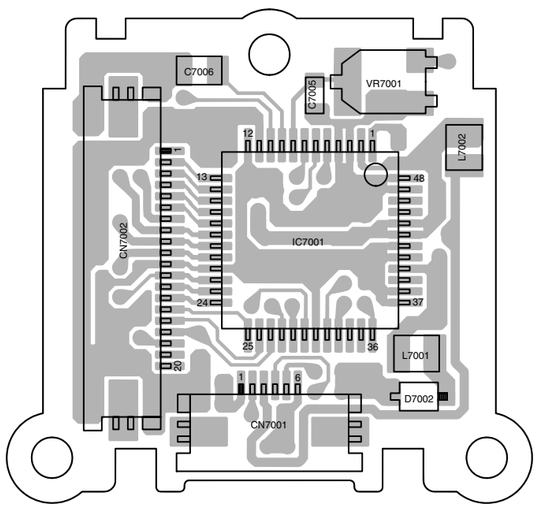
FOIL SIDE (B)

08 VF PWB
YB20910



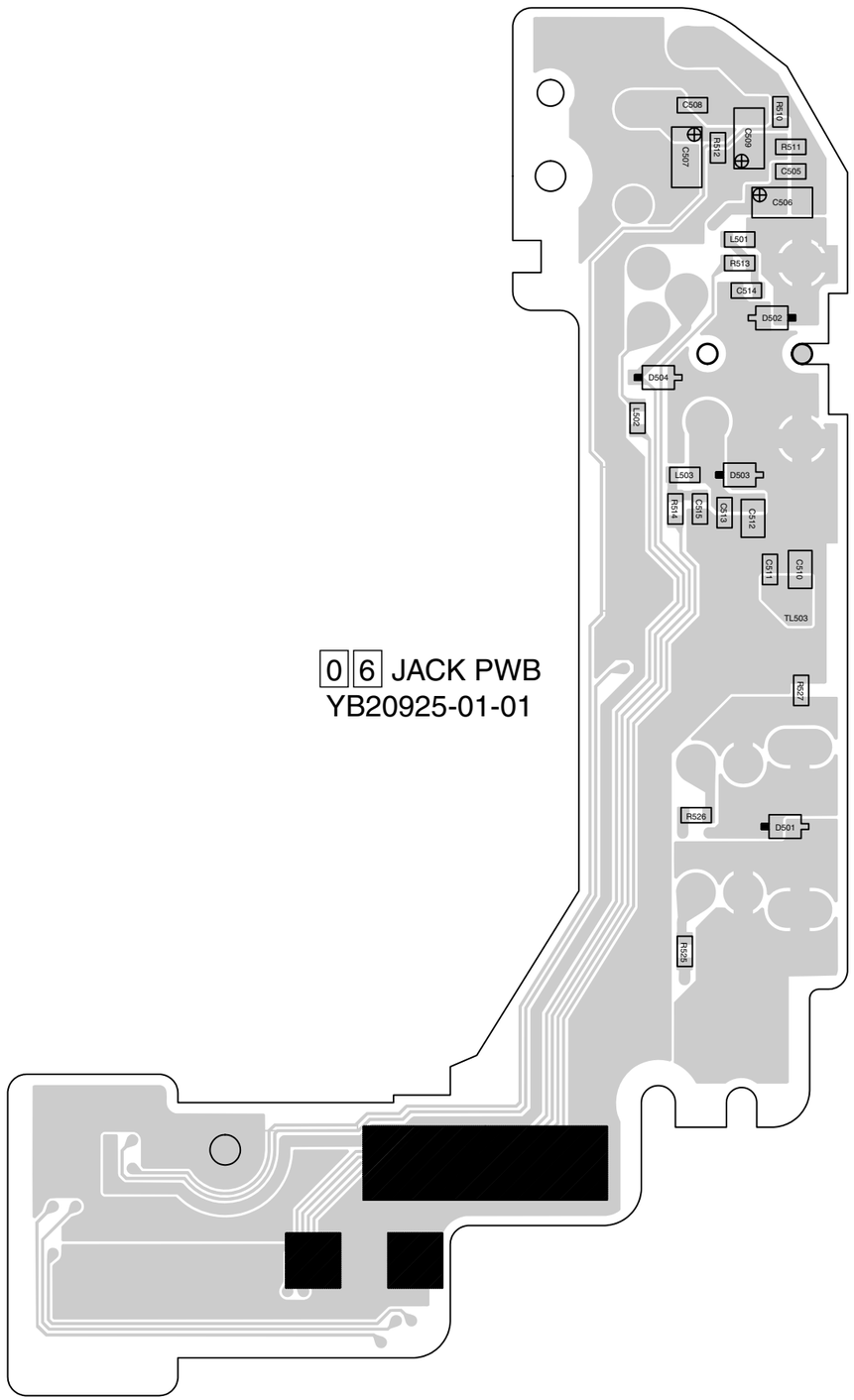
COMPONENT SIDE (A)

08 VF PWB
YB20910



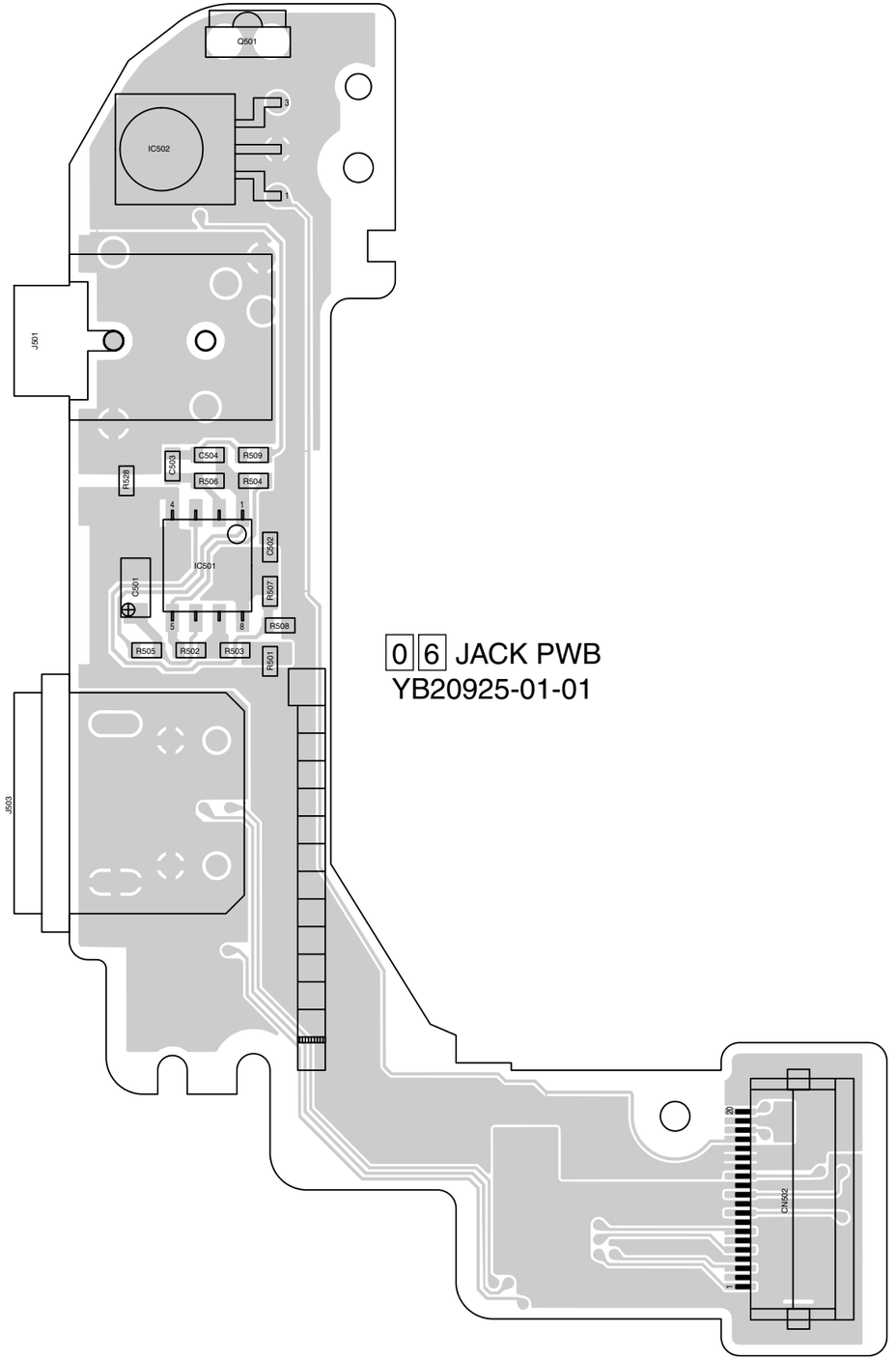
4.25 JACK CIRCUIT BOARD

FOIL SIDE (B)



06 JACK PWB
YB20925-01-01

COMPONENT SIDE (A)



06 JACK PWB
YB20925-01-01

4.26 VOLTAGE CHARTS

<SYSCON>

MODE PIN NO.	REC	PLAY
IC1001	-	-
IC1002	-	-
IC1003		
1	3.0	3.0
2	0.7	0.7
3	3.1	3.1
4	0	0
5	0.6	0.6
6	3.0	3.0
7	3.0	3.0
8	3.1	3.1
IC1004		
1	1.4	1.4
2	0	0
3	1.3	1.3
4	0	0
5	3.0	3.0
IC1005		
1	0	0
2	3.0	3.0
3	0	0
4	3.0	3.0
5	3.0	3.0
IC1006		
1	2.7	2.7
2	0	0
3	0.4	0.4
4	3.0	3.1
5	3.1	3.1
6	3.1	3.1
7	1.4	1.4
8	1.4	1.4
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	3.0	3.0
20	2.9	2.8
IC1007	-	-
IC1009	-	-
Q1001		
E	0	0
C	0	0
B	0	0
Q1002		
E	0	0
C	3.1	3.1
B	0.6	0.6
Q1004	-	-
Q1005		
D	3.0	3.0
S	0	0
G	3.0	3.0
Q1010	-	-
Q1011	-	-
Q1012	-	-
Q1013	-	-

<D.CPU>

MODE PIN NO.	REC	PLAY
IC1401	-	-
Q1401		
E	3.1	3.1
C	3.1	3.1
B	3.1	3.1
Q1402		
1(E)	0	0
2(B)	3.1	3.1
3(E)	3.1	3.1
4(C)	2.8	2.8
5(C)	0	0
Q1403		
1(E)	0	0
2(B)	0	0
3(E)	3.0	3.0
4(C)	0	0
5(C)	3.1	3.1

<MDA>

MODE PIN NO.	REC	PLAY
IC1601		
1	0	0
2	0.8	0.8
3	0.8	0.8
4	0.8	0.8
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	4.8	4.8
13	0.4	0.4
14	0.4	0.4
15	0.4	0.5
16	0	0.6
17	0.7	0.8
18	11.1	11.1
19	1.5	1.5
20	1.5	1.5
21	1.5	1.5
22	1.5	1.5
23	1.5	1.5
24	1.5	1.5
25	1.5	1.5
26	1.6	1.5
27	1.5	1.5
28	1.5	1.5
29	3.1	3.1
30	0	0
31	0.7	0.7
32	0.6	0.6
33	1.6	1.6
34	3.1	3.1
35	0	0
36	0	0
37	0	0
38	0	0
39	0	0
40	1.7	1.7
41	0.7	0.7
42	0.7	0.7
43	0	1.0
44	0.6	0.7
45	0	0
46	0	0
47	2.8	2.8
48	1.2	1.2
49	1.6	1.5
50	1.5	1.5
51	1.5	1.5

MODE PIN NO.	REC	PLAY
52	1.5	1.5
53	1.6	1.5
54	0.4	0.4
55	0	0
56	0.8	0.8
57	0.8	0.8
58	0.8	0.8
59	0.8	0.8
60	1.2	1.1
61	0.4	0.4
62	0	0
63	11.1	11.1
64	1.7	1.7
IC1602		
1	-	-
2	3.1	3.1
3	-	-
4	0	0
5	-	-
6	0	0
7	-	-
8	3.1	3.1
Q1601		
1(E)	0	0
2(B)	0	0
3(E)	4.8	4.8
4(C)	0	0
5(C)	4.8	4.8

<AUDIO>

MODE PIN NO.	REC	PLAY
IC2001		
1	2.1	0.7
2	2.0	0
3	2.0	0
4	2.1	0
5	1.5	1.5
6	1.5	1.5
7	1.5	1.5
8	0	0
9	3.1	3.1
10	0.7	1.5
11	0.7	1.5
12	0.7	1.5
13	0.7	1.5
14	1.5	1.5
15	1.5	1.5
16	0.6	1.5
17	1.4	1.5
18	1.5	1.5
19	1.3	1.5
20	1.5	1.5
21	1.3	1.3
22	2.4	2.4
23	4.8	4.8
24	0	0
25	0	0
26	0	0
27	3.1	3.1
28	0	0
29	1.5	0
30	1.3	1.3
31	1.5	0
32	2.9	2.9
33	3.0	3.0
34	1.5	1.5
35	1.5	1.6
36	1.5	1.4
37	3.0	3.0
38	0	2.4
39	0	0
40	0	2.4

MODE PIN NO.	REC	PLAY
41	0	0
42	0	0
43	4.8	4.8
44	1.5	1.5
45	2.0	0
46	2.0	0
47	2.1	0
48	2.0	0.6
49	2.1	0.5
50	2.1	0.5
51	2.1	0
52	2.7	0
53	2.0	0
54	2.0	0
55	4.1	4.2
56	2.0	2.1
57	0	0
58	4.1	4.2
59	2.0	0
60	2.0	0
61	2.0	0
62	2.0	0
63	2.0	1.0
64	2.0	0
Q2001		
1(E)	0	0
2(E)	0	0
3(B)	0	0
4(C)	0	0
5(B)	0	0
6(C)	0	0
Q2002		
E	4.1	4.2
C	4.8	4.8
B	4.8	4.8
Q2004	-	-

<DVMAIN>

MODE PIN NO.	REC	PLAY
IC3001	-	-
IC3005		
1	0	0.4
2	0	0.4
3	0	0
4	2.1	2.1
5	1.1	1.2
6	1.2	1.6
7	3.1	3.1
8	1.2	1.6
Q3001	-	-
Q3002	-	-

<PRE/REC>

MODE PIN NO.	REC	PLAY
IC3501		
1	0	0
2	0.5	0.5
3	0	0
4	0	1.6
5	2.5	2.5
6	2.3	1.6
7	1.4	0
8	0	0
9	1.4	3.1
10	1.9	1.9
11	3.1	3.1
12	0	0
13	4.8	4.8
14	0	0
15	0	0

MODE PIN NO.	REC	PLAY
16	0	0
17	0	0
18	3.6	1.7
19	3.3	1.7
20	3.3	1.7
21	3.6	1.7
22	0	0
23	3.6	1.7
24	3.3	1.7
25	3.4	1.7
26	3.6	1.7
27	0	0
28	1.9	2.3
29	3.3	1.7
30	3.3	1.7
31	2.2	2.7
32	0	0
33	0	0
34	0	0
35	1.8	1.8
36	0.4	0.4
37	3.1	3.1
38	0	3.1
39	3.1	3.1
40	1.5	1.5
41	0	3.1
42	3.1	0
43	4.8	4.8
44	3.0	0
45	0.6	0
46	0	2.0
47	0	2.1
48	4.4	3.1
49	4.6	2.8
50	0	1.6
51	1.2	1.2
52	1.1	1.7
53	0	0
54	3.1	2.6
55	2.4	1.9
56	1.1	1.1
57	2.5	1.9
58	2.5	1.3
59	0	0
60	1.2	1.2
61	3.6	1.9
62	2.4	1.9
63	2.5	1.3
64	2.5	1.9
IC3502		
1	0.5	0
2	0.5	0
3	0	0
4	0.7	0
5	3.1	3.1

<V OUT>

MODE PIN NO.	REC	PLAY
IC3701		
1	-	-
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	2.3	2.3
10	0	0
11	2.1	2.1
12	2.1	2.1
13	4.8	4.8

MODE PIN NO.	REC	PLAY
14	1.9	1.9
15	1.9	1.9
16	4.8	4.8
Q3701	-	-
Q3702		
1(E)	0	0
2(B)	0	0
3(C)	0	0
4(E)	4.8	4.8
5(B)	4.4	4.4
6(C)	4.4	4.4

<DSP>

MODE PIN NO.	REC	PLAY
IC4201		
1	0	0
2	1.3	0
3	1.8	3.0
4	1.8	3.0
5	1.5	3.1
6	1.3	3.1
7	0	0
8	0.4	0
9	0.6	0
10	0.4	0
11	0	0
12	0	0
13	3.1	3.0
14	0	0
15	0	0
16	1.2	1.2
17	3.0	3.1
18	3.1	3.1
19	2.5	2.5
20	3.0	3.0
21	2.2	2.2
22	2.2	2.2
23	0	0
24	3.0	3.0
25	0	0
26	0	0
27	3.0	3.0
28	2.0	0.4
29	2.0	0.4
30	2.0	1.7
31	2.0	0.5
32	1.3	0
33	3.0	3.1
34	0	0
35	0	0
36	0	0
37	1.5	0.4
38	2.0	0.4
39	0.9	0.5
40	3.0	3.0
41	0	0
42	0	0
43	3.0	3.0
44	3.0	3.0
45	0	0
46	3.0	3.0
47	1.5	0
48	3.0	3.0
IC4202		
1	4.8	4.8
2	0	0
3	1.2	1.2
4	3.0	3.0
5	4.8	4.8
IC4301	-	-
IC4302	-	-

<MONI IF>

MODE PIN NO.	REC	PLAY
IC4305	-	-
Q4304	-	-
Q4305	-	-
Q4306	-	-
Q4307	-	-

<OP.DRV>

MODE PIN NO.	REC	PLAY
IC4601	-	-
IC4602	-	-
IC4901	-	-
Q4601	-	-
Q4602	-	-
Q4901	-	-

<TG>

MODE PIN NO.	REC	PLAY
IC5501	-	-

<REG>

MODE PIN NO.	REC	PLAY
IC6001	-	-
IC6101	-	-
Q6001		
E	0	0
C	-	-
B	3.1	3.1
Q6002	-	-
Q6004	-	-
Q6201		
D	11.1	11.1
S	7.8	7.8
G	3.1	3.1
Q6202		
E	3.1	3.1
C	2.5	2.5
B	2.4	2.4
Q6203		
D	11.1	11.1
S	9.1	9.1
G	1.8	1.8
Q6204		
D	11.1	11.0
S	6.1	6.0
G	4.9	4.9
Q6205		
E	4.8	4.8
C	0	0
B	4.8	4.8
Q6206		
E	0	0
C	4.8	4.8
B	0	0
Q6208		
D	11.1	11.1
S	-	-
G	-	-
Q6210		
D	11.1	11.1
S	10.1	10.1
G	-	-
Q6211		
D	11.1	11.1
S	7.7	7.7
G	0	0
Q6212	-	-

MODE PIN NO.	REC	PLAY
Q6213	-	-
Q6214	-	-
Q6215	-	-
Q6216	-	-
Q6701		
D	11.1	11.1
S	11.1	11.1
G	0	0

<JACK>

MODE PIN NO.	REC	PLAY
IC501		
1	1.9	1.9
2	2.0	1.9
3	1.9	1.9
4	0	0
5	1.9	1.9
6	1.9	1.9
7	1.5	1.5
8	4.8	4.8
IC502		
1	4.6	4.6
2	0	0
3	4.8	4.8
Q501		
E	0	0
C	4.3	4.3
B	-	-

<CCD>

MODE PIN NO.	EE
IC5001	-
Q5001	-

<B/W VF>

MODE PIN NO.	EE
IC7001	
1	3.0
2	3.0
3	0
4	0
5	1.0
6	2.2
7	1.6
8	1.5
9	1.3
10	0
11	0
12	0
13	3.0
14	7.5
15	3.0
16	3.0
17	5.8
18	2.0
19	1.9
20	9.1
21	0
22	1.6
23	3.0
24	1.5
25	1.8
26	1.8
27	3.5
28	0
29	11.0
30	0
31	0
32	0
33	0
34	0
35	0
36	0.8
37	0
38	0
39	0
40	11.2
41	0
42	0
43	3.0
44	3.0
45	1.5
46	0.6
47	0
48	0
Q7001	
1(E)	0.6
2(E)	1.2
3(B)	0
4(C)	0
5(B)	1.2
6(C)	1.2

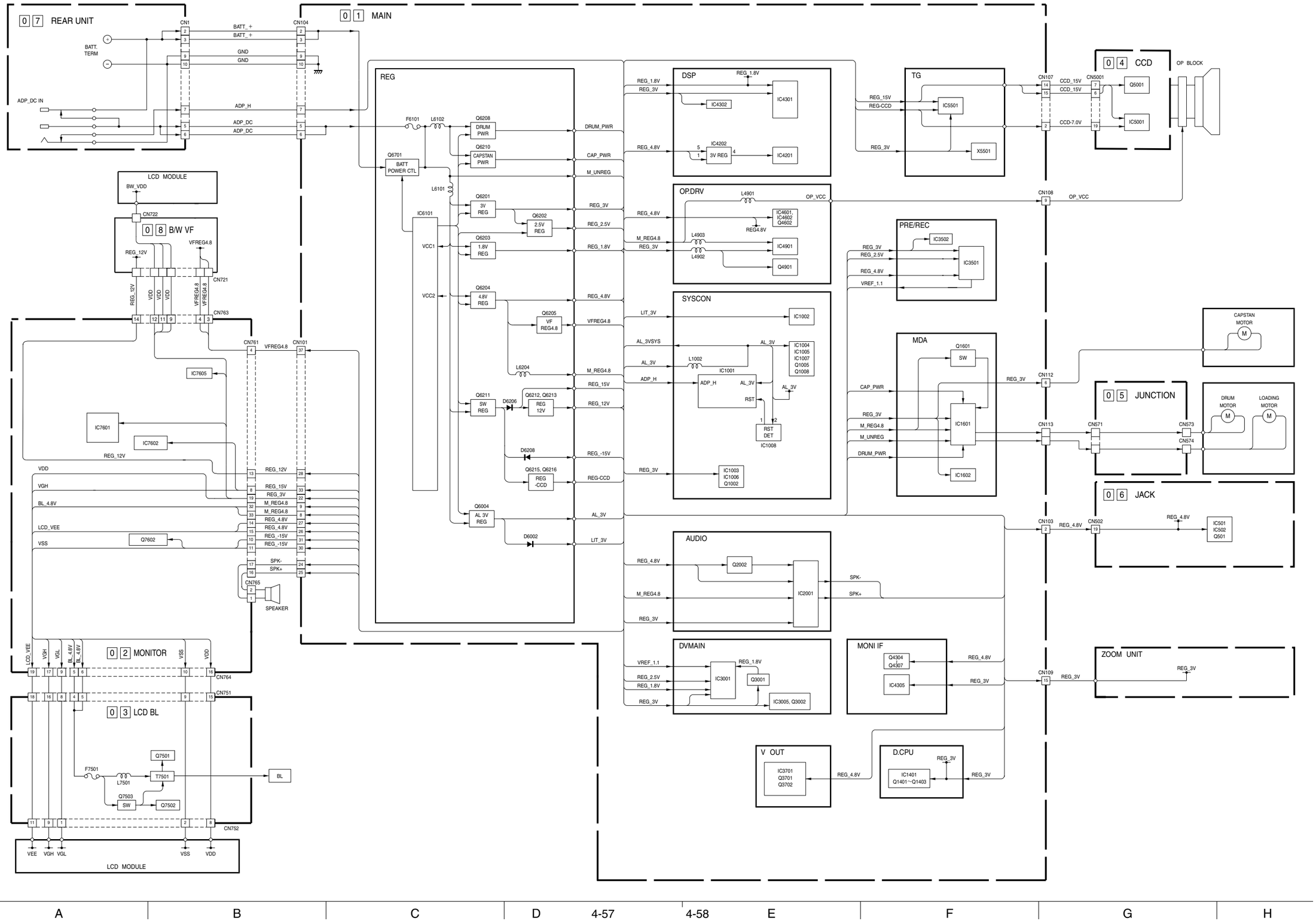
<LCD BL>

MODE PIN NO.	EE
Q7501	
E	0
C	4.4
B	0.4
Q7502	
E	0
C	4.4
B	0.4
Q7503	
E	4.6
C	4.5
B	0
Q7504	
E	0
C	0
B	0.6

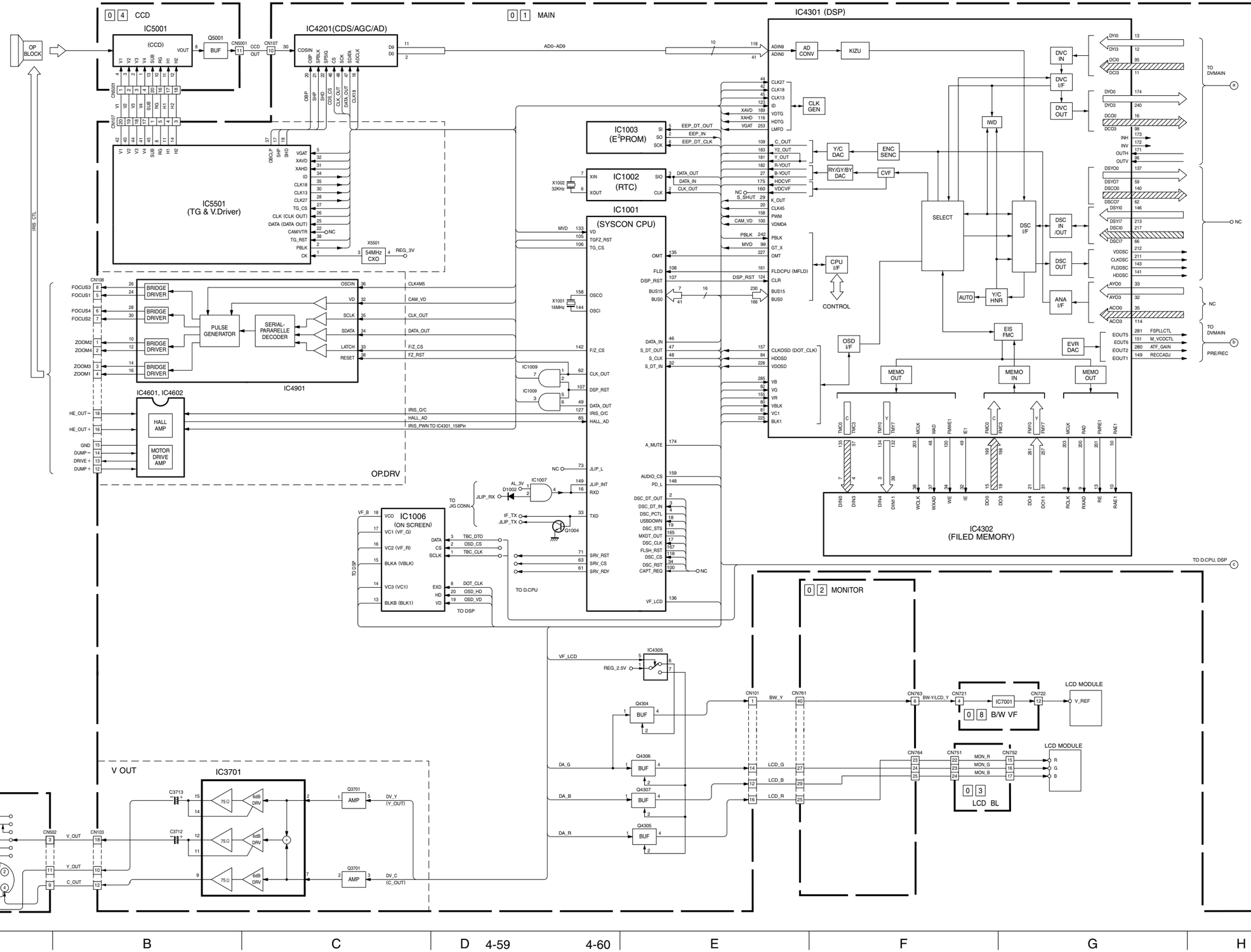
<MONITOR>

MODE PIN NO.	EE
IC7601	-
IC7602	-
IC7603	-
IC7604	-
Q7601	-
Q7602	-
Q7603	-
Q7604	-
Q7605	-
Q7606	-
Q7607	-
Q7609	-

4.27 POWER SYSTEM BLOCK DIAGRAM



4.28 VIDEO SYSTEM BLOCK DIAGRAM



0 1 MAIN

IC3001(DVMAIN)

TO DSP (8)

YSO0 257 / YSO3 258
BRSO0 193 / BRSO3 194
OUTH 122
OUTV 43
YSI0 115 / YSI3 117
BRSI0 255 / BRSI3 191
INH 39
INV 119

TO TG

CLK27 3 → OSC27I 38

TO D.CPU

ADDTO0 67 / ADDT15 150 → AD0 / AD15
DV_RST 64 → XRST
DALE 142 → CPUALE
DWE 212 → XCPUDSTB0
DRE 143 → XCPUDSTB1
DRWSEL 213 → XCPURW
DV_WATT 66 → CPUWAIT

TO DSP (5)

HOST CPU I/F

VIDEO I/F (VBID DET RAM)
COMPRESS (DCT,VLC VLD WORK RAM)
OUTER ECC (ENC/DET)
RAM (SUB/AUX)
INNER ECC (ENC/DEC)
FORMATTER (Formatting Sync Detect ID Protect De-formatting)
RAM (CLOCK CONV) ×4
D-RAM I/F
IEE1394 LINK (ISO/ ASYNC FIFO)
AUDIO (WORK RAM PROGRAM RISC CORE)

(DECK_DSP)

PWMAUDIO 182 → FSPLLCTL
RECCTL 173 → RECCTL
RECDATA 100 → RECDATA
RECCLK 174 → RECCLK
SPA 242 → SPA
HSP 240 / HID 98 / TRKREF 243 / FRREF 101 → TO D.CPU (TSR, FRP)

IC3005
DAAOUT0 11 / DAAOUT1 237 → AMP+ / AMP- → AMPO 4
DISCRI 106

PWM27O 23 → R3009 → R3010 → M_VCOCTL; R3011
OSC27O 104 → C3024 → L3007 → D3301
OSC27I 105 → C3023
CLK27SEL 24

PHYTPA 82 / PHYTPB 156 / PHYXTPA 208 / PHYXTPB 286
TPA+ / TPB- / TPA- / TPB+
R3034
FS_PLL
ALRCK 246 / ABCK 106 / AMCK 108 / AODAT0 248 / AIDAT1 185 / NUDE 112

IC3501

TO D.CPU
HID3 38 / PBH 41 / RECH 42 / HID1 40
IC3502 2 → 4
REC_CLK 9 / REC_DTA 7 / REC_CTL 44
MONI_CHG 12

TO JIG CONN. (CN105)
ENV_OUT 48

ATF_GAIN 60 / AGC_OUT 57 / RECCADJ 10 (TO DSP)

HID3 / PB_H / REC_H / HID1 / REC_CLK / REC_DATA / R_CTL / MONI_CHG / (PRE/REC) / PB_MONI / ATF_GAIN / AGC_BUFF_OUT / REC_GAIN

Y2 24 → 2F
X2 25 → 2S
X1 20 → 1S
Y1 19 → 1F

HEAD
CN110: 6 2F / 7 2S / 3 1S / 2 1F

OPEN

1 0 DSC

IC8001

TO CAM.DSP
TO SYSCON (C)

CN111 / CN8001
DSYIO0 27 / DSYIO7 70 → YIO0 246 / YIO7 244
DSCIO0 23 / DSCIO7 66 → CIO0 188 / CIO7 247
DSYO0 33 / DSYO7 76 → YIN0 191 / YIN7 190
DSCO0 37 / DSCO7 80 → CIN0 237 / CIN7 235
CLKDSC 31 → CLKIN1 176
HDDSC 32 → HDIN 172
VDDSC 71 → VDIN 249
FLDDSC 72 → FID 212 / MXI 199
R8068 C8126
R8029
CLK27 3 → CLKIN2 219
DSC_WKUP 59 → GIO0 157
DSC_CS 56 → GIO18 125
DSC_CLK 17 → SCLK1 206
DSC_DT_OUT 18 → SDI1 205
DSC_DT_IN 57 → SDO1 184
USBDOWN 15 → GIO13 135
DSC_RST 16 → RESET 182
MXDT_OUT 58 → GIO16 127
CAPT_REQ 19 → GIO7 146
DSC_STS 20 → GIO11 138
USB_DN_RX 11 → USB_DN 204
USBDOWN 15
D8001 / IC8004
USB_DP_TX 51 → USB_DP 221
FLSH_RST 55 → TO IC8003-12PIN

TO SYSCON
TO CN103-7PIN
TO CN103-6PIN

SDI3 174 / SCK3 173 / SDO3 250 / GIO20 117 → Data2Host / MMC_CLK / Data2MMC / SD/MMC_CS → CN8002 2 5 7 9 → TO MONITOR

ARM_D15 / ARM_D0 39 ↔ 108 DSC R/D_DATA 16
ARM_A19 / ARM_A0 7 / 20 DSC R/D_ADRESS 20
A0–A19 25 9 29 45
DQ0–DQ15

IC8003 (16M_FLASH RAM)
EM_CS_O 11 → FLSH_CE 26
EM_OE 85 → FLSH_OE 28
EM_WE 9 → FLSH_WE 11
RESET 15
FROM CN8001-55PIN

M48XI 49 / M48XO 30 → X8002 CXO 2 3 48MHz

SDR_DQ0 / SDR_DQ15 16 ↔ 75 SDRAM_DATA 53
SDR_A0 / SDR_A11 23 ↔ 150 / 159 SDRAM_ADRESS 35
SDR_CKE 51 → 38
SDR_CLK 177 → 19
SDR_CS 201 → 17
SDR_CAS 160 → 15
SDR_DQMLH 200 → 16
SDR_RAS 193 → 18
SDR_WE 180 → 36
SDR_DQMLL

IC8002 16M SDRAM
DQ0 2 / DQ15 54 / A0 23 / A11 35 / CKE 37 / CLK 19 / CS 17 / CAS 15 / LDQM 16 / RAS 18 / WE 36 / UDQM

IC1401(D.CPU)

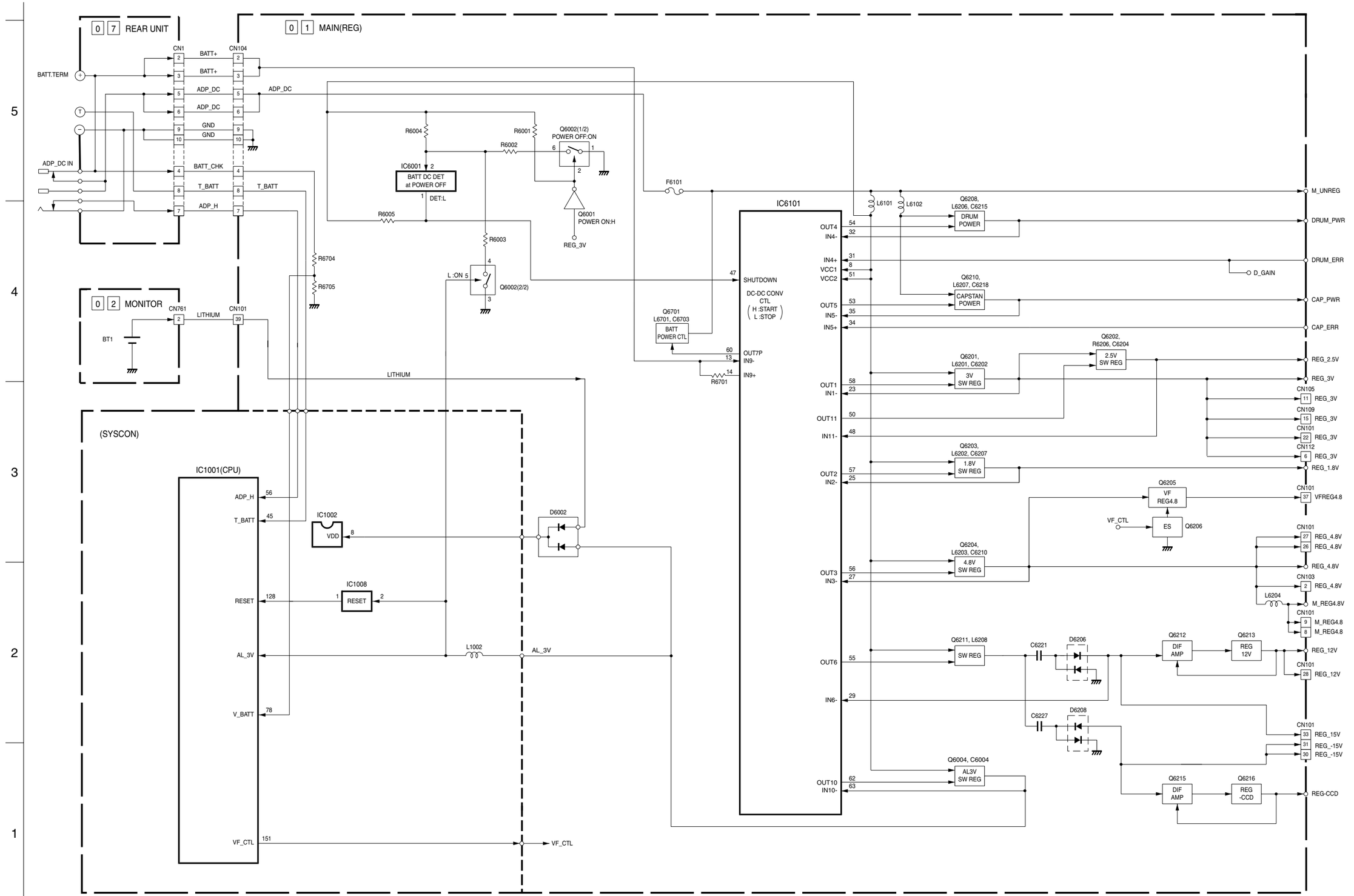
TO IC3501 167 → MONI_CHG
TO DSP → VD 71 → CAM_VD
TO SYSCON(IC1003) → EEP_WRITE 49 / EEP_CLK 62 / EEP_READ 46
TO SYSCON → SYS_CLK 17 / SYS_IN 2 / SYS_OUT 3 / MSELECT SRV_CS 131 / READY SRV_RDY 18 / RESET SRV_RST 128
TO JIG CONN → TXD SRV_TX 33 / RXD SRV_RX 16
X1401 → OSCO 158 / OSCI 144

DV_RST 153 / DV_WAIT 50 / ADDT00 41 / ADDT15 7 / DALE 26 / DRWSEL 67 / DRE 42 / DWE 57 → TO IC3001
CLK27SEL 152 → TO IC3001
HID 112 / HID 174 / PBH 145 → TO IC3501
RECH 130 / HID_3 151 → TO IC3501
SPA 99 / FRP 108 / TSR 110 → TO IC3001

TO IC3001: AIMCK / AILRCK / AIBCK / AIDAT / ADDAT → TO AUDIO
TPA+ / TPA- / TPB+ / TPB- → DV IN/OUT → DV J101
PD_L / CLK_OUT / DATA_OUT / AUDIO_CS → TO AUDIO
S_SHUT → TO AUDIO

A B C D 4-61 4-62 E F G H

4.29 REGULATOR SYSTEM BLOCK DIAGRAM



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